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A Comparison of the Elements of Stage Fright to Pre-Performance Anxiety in Sport

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Scott Daniel Buss

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ABSTRACT

A COMPARISON OF THE ELEMENTS OF STAGE FRIGHT TO PRE-PERFORMANCE ANXIETY IN SPORT

by Scott D. Buss

The purpose of this investigation was to determine whether the six factors shown to affect stage fright (Stebbins, 1981) also affect pre-performance anxiety in tennis. Northern California Community Colleges supporting a intercollegiate tennis team were pooled for this study. Three women's and three men's teams were randomly selected for this study (n = 36). Data were collected by administering the Competitive State Anxiety Inventory-2 (CSAI-2) prior to an intercollegiate tennis match to determine the participants' pre-performance state anxiety. Post-game interviews were conducted. Participants were questioned about their thoughts and feelings related to their match. Analysis of the CSAI-2 and interview data determined whether tennis players high or low in pre-performance state anxiety perceived the elements of stage fright as threatening. The findings show that the high state anxious tennis players were affected by the six factors of stage fright. Findings for the individual effects of the six factors were also discussed.

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CHAPTER 1

Introduction

Prior to participation in an evaluative event a performer can experience various emotional states. Emotional states such as fear of failure (Kroll, 1984), self-confidence (Martens, Vealey, & Burton, 1990), and anxiety (Martens, 1977) have all been found to affect performance. Anxiety, in particular has been recognized as an important psychological issue for many years (Martens, 1971). Anxiety is defined as, "emotional reactions that consist of an unique combination of: (1) feelings of tension, apprehension and nervousness; (2) unpleasant thoughts (worries), and (3) physiological changes" (Spielberger, 1989, p. 5). Also, characteristic of anxiety is the direction of the effect during anxious moments is negative (Spielberger, 1966). Furthermore, Spielberger (1966) describes anxiety as either a transitory state that fluctuates over time or as a personality trait that remains relatively stable. Traditionally, the former has been identified as state anxiety, and the latter as trait anxiety (Spielberger, 1966).

State anxiety refers to a subjective feeling of apprehension and tension, accompanied by the arousal of the autonomic system, and is the reaction that is taking place at that moment to a given level of intensity (Spielberger, 1966). Trait anxiety indicates a behavioral disposition that predisposes an individual to perceive a wide range of circumstances as stressful, and to respond to these with state anxiety reactions (Spielberger, 1966). In other words, state anxiety is the actual feeling or state of apprehension and tension at any given moment whereas trait anxiety is the tendency or predisposition to become anxious in stressful situations.

Additional research has found that both state and trait anxiety can be further differentiated into multidimensional components (Davidson & Schwartz, 1976; Liebert & Morris, 1967). Liebert and Morris (1967) introduced two multidimensional components of state anxiety and described the components as "worry" and "emotionality." Worry refers to personal concerns about the performance; it arises whenever expectations of success become negative (Liebert & Morris, 1967). Thinking about the consequences of failure or negative self-talk are examples of worry. Emotionality refers to the physiological experience generated by autonomic arousal (Liebert & Morris, 1967). For example, the perception of shortness of breath, rapid heart rate, and excessive perspiration characterize emotionality. Cues, such as a crowd in the stands, pre-performance routines and warm-ups are believed to arouse and sustain emotionality (Burton, 1988). When looking at these findings within a group it appears that the state anxiety response is somewhat random and haphazard, but when focusing on the individual the anxiety response can be rather stable and predictable (Davidson & Schwartz, 1976).

In fact, Davidson and Schwartz (1976) identified the "worry" and "emotionality" components of state anxiety as the "cognitive" and "somatic" components of trait anxiety, respectively. Individuals could now be identified as either cognitive (mental) or somatic (physical) anxiety types (Schwartz, Davidson, & Goleman, 1978). In other words, people that experience the mental symptoms of anxiety more than the physical symptoms would be more affected by cognitive anxiety, while individuals that experience the physical symptoms of anxiety to a greater degree than the mental symptoms would be more affected by somatic anxiety.

Research findings are not consistent in determining which component of anxiety, either "cognitive" or "somatic," affects performance more often or more intensely (Morris, Davis, & Hutchings, 1981; Ussher & Hardy, 1986). Early research in the academic setting has demonstrated that cognitive anxiety impairs performance more often and more strongly during intellectual tasks than does somatic anxiety (Deffenbacher, 1978; Morris & Liebert, 1973). Findings indicate that cognitive anxiety affects the ongoing intellectual performance more than somatic anxiety, due to the fact that expectations of success during the performance may change at any time during that performance (Morris et al., 1981). Also, cognitive anxiety has been found not to decrease significantly from the beginning to the end of the performance unless such situational factors as performance expectancy change for the individual during this time (Morris et al., 1981). In contrast, somatic anxiety will typically increase prior to performance and decrease as the intellectual performance progresses (Morris & Engle, 1981). Typically, non-evaluative cues such as the performance setting, the difficulty of the task, or people conversing about the upcoming event could all affect somatic anxiety. Thus, somatic anxiety should primarily affect the initial stages of a performance when the performer is feeling tight and nervous and affect performance only minimally once the performer's attention is turned to the performance itself (Morris et al., 1981).

Much of this empirical research has been conducted in the academic testing setting and is difficult to apply to sport or a physical performance. On the basis of the lack of research with sport and anxiety, Martens, Burton, Vealey, Bump, and Smith (1983) developed a multidimensional state anxiety inventory for sport competition known as the Competitive State Anxiety Inventory-2 (CSAI-2). The CSAI-2 has been found to assess accurately, cognitive and somatic

competitive state anxiety as well as self-confidence. In a series of three experiments utilizing the CSAI-2 Martens et al. (1983) developed the anxiety-performance hypothesis. Martens et al. (1983) predicted that somatic anxiety should increase prior to competition and that cognitive anxiety would remain stable through out competition and have a greater effect on sport performance than somatic anxiety.

In comparison to Martens et al. (1983) hypothesis, it could be argued that somatic anxiety may influence sport performance more directly because of the physical demands of sport which often need attainment of an optimal physiological readiness state for the best performance (Burton, 1988). Ussher and Hardy (1986) have demonstrated that cognitive and somatic anxiety do have separate effects on varying tasks. Their results support past research by demonstrating that cognitive tasks are affected by cognitive anxiety, however the results also suggest that somatic anxiety does affect performance at least in the case of a motor task. Research consistent with the finding that motor performance is affected by somatic anxiety has been discovered in such sports as golf (Krane & Williams, 1987), gymnastics (Krane & Williams, 1987), pistol shooting (Gould, Petlichkoff, Simons, & Vevera,1987), and wrestling (Gould, Petlichkoff, & Weinberg, 1984).

Test taking and sports participation are similar in that they can be highly stressful at times. Deri (1962) stated that there are many situations where one has to prove oneself, such as in final examinations, sports competition, or appearing on stage before an audience. However different these situations may be, they contain a similar challenge in which the person has to prove oneself within a particular performance, and in each case there is the possibility of failure that gives rise to anxiety (Deri, 1962). The key phrase is the

"possibility of failure"; that is the individual has not yet completed the task at hand and the uncertainty of the outcome is what gives rise to pre-performance anxiety. In fact, Stebbins (1981) has identified this anticipatory effect as stage fright.

Characteristically, stage fright occurs prior to the event and affects the individual temporarily (Stebbins, 1981). Typically, stage fright dissipates shortly after the event begins, when the individual relaxes and feels confident that the task at hand is under control. Although an individual's trait anxiety can predispose one to be more or less vulnerable to stage fright even after years of experience (Aaron, 1986), stage fright itself could be considered a form of state anxiety. Stage fright is similar to how Spielberger (1966) defined state anxiety. Stage fright demonstrates the same characteristics as state anxiety in that it is an apprehension and tension which is only a reaction to what is taking place at the moment.

Furthermore, stage fright can be either cognitive or somatic (Aaron, 1986). For example, individuals can feel dizziness, jittery, butterflies, muscular tension, or perhaps overly perspire, which are all symptoms of somatic anxiety. In fact, Stebbins (1981) discovered through interviews with baseball players that they frequently mentioned having butterflies prior to their first time at bat for that specific game. Aaron (1986) also, has indicated that actors have shown signs of dizziness and even have become temporally deaf before performing.

Cognitive anxiety is also experienced in stage fright. Stebbins (1981) has discovered that individuals worry or fear that they may lose confidence and become unable to speak or perform at a level necessary to conduct the activity as expected. Aaron (1986) further claims that it is our past experiences of stage fright that eventually brings people to feel out of control. It is the fear of stage

fright itself that effects a performer's mind and body because there is no control the debilitating consequences stage fright brings with it (Aaron, 1986).

Stage fright can be extremely debilitating to an individual's performance (Deri, 1962). Lyman and Scott (1970) wrote an essay on stage fright and referred to the problem as sustaining one's identity, especially during one's apprehensiveness about one's ability to do so. In other words, there is doubt in ones own ability. Lyman and Scott (1970) identified two situations that generated stage fright. The first situation stipulated that the performer must know in advance that he or she will be open to a total inspection of self by others. The second situation was the anticipation of knowing that a slip or flaw in the performance will invite challenges to that performers identity. Although, Lyman and Scott (1970) laid the foundation for research on the psychosocial antecedents and consequences of stage fright, Stebbins (1981) extended their research by identifying one additional situation that could trigger an emotional response. Stebbins (1981) stated that stage fright could also develop when the performer has to perform exceptionally well. Stage fright results here not from an apprehension that the individual might be unable to perform in routine circumstances, but from the apprehension that one might miss the opportunity to show how well he or she can perform under tense conditions when others expect less from him or her.

In the three situations presented above the underlying theme is that an evaluative audience is present. In fact, Aaron (1986) originally stated that the audience was the only catalyst for stage fright. However, he further discovered that another catalyst to stage fright was the sense of loss or a severed relationship the actor feels when the director who had been previously giving commands to the actors through all the rehearsals was no longer a part of the

actual performance. Aaron (1986) states that it is this unconscious sense of loss that triggers stage fright. However, this is only the beginning of the actor's anxiety; stage fright then further intensifies because the actor feels helpless in front of strangers. The fact that the actor has failed to ward off the anxiety attack and abandons his or her own defense mechanism is what makes him or her feel helpless (Aaron, 1986). Although, this feeling of aloneness may be unique to actors since dancers have their music, and musicians and singers have a conductor, they are never psychologically alone like the actor (Aaron, 1986).

However, a parallel can be found with this notion in sport. Individual and team sports are quite different. For an individual sport such as tennis, the player is alone because he or she is no longer on the practice court with the coach. The coach in a sense has left. This is similar to the actor's experience. There is a sense of loss and the player feels helpless intensifying his or her fears. In contrast, there is the likelihood that individuals playing team sports are affected differently. The performance of the team is not the sole responsibility of one individual. For example, during a running play in football, linemen make blocks for the running back carrying the ball and it is this team effort that determines the success of the play. Even if an individual were to fear that he or she were to make an error on the play, security may come from the team itself. The player might feel the error could go undetected due to the activity of the players running in different directions. The player senses he or she can hide amongst their team members if an error was made. This form of hiding can protect individuals from stage fright. However, in individual sports such as tennis there is no where to hide. The player is alone on the court. There is no team to hide from the audience's evaluation of the performance. Each player bears full responsibility for any mistakes during play.

Aaron (1986) further explains that an actor's performance does not provide for a postural system. In other words, the coping mechanism such as fiddling with a pencil, smoking, hands in the pockets, or holding a drink, etc. are suppressed and do not allow for a release of stress. Consciously the actor tries to inhibit the involuntary coping mechanisms and unmeant gestures, unconsciously the ego's defense maneuvers are compromised to such that the actor enters a state of anxiety (Aaron, 1986). It is this particular kind of immobility where the actors usual repertoire of self-comforting gestures are disallowed by the requirements of the performance which is central to the traumatic nature of stage fright (Aaron, 1986). In the seconds before performance the actor is rendered helpless.

Aaron (1986) states that some nights stage fright is very intense and other nights it is not. He has shown there are a number of variables having to do with the actors psychic life prior to a particular performance. He has shown that the feeling of loss of control, aloneness, and helplessness are three variables that effect the intensity of stage fright.

Through observations with theater actors and baseball amateurs Stebbins (1981) has also determined that there are specific conditions that must exist and be defined as threatening to trigger stage fright. Stebbins identified six preconditions that must exist simultaneously to result in stage fright. The preconditions are, importance of the event, the time proximity before event, audience effects , control over the event, the difficulty of the event, and the level of fear of freezing one has prior to performing. It is the purpose of this thesis to determine if these six preconditions of stage fright are related to the pre-performance anxiety of tennis players prior to a tennis match.

Significance of the Study

Stebbins (1981) stated that in order for stage fright to emerge prior to a performance of a critical activity the performer knows in advance that he/she could be placed in one or more of three threatening situations. The first situation is where he/she is open to an evaluation by others. The second situation is where a mistake in the performance invites a challenge to a claimed identity and lastly, the performer knows he/she must perform exceptionally well.

These threatening situations may be a powerful determinant of one's pre-performance anxiety as well as the performance itself (e.g., Martens, 1977; Passer, 1983; Paulus & Cornelius, 1974). According to Stebbins (1981), six elements prior to performance must exist in order for these three situations to be perceived as threatening by the performer. These elements are, importance, imminence, evaluative audience, control, task difficulty, and freezing. The significance of this study was to understand and know if these determinants of stage fright affect pre-performance anxiety in sport, and to provide information for both anxiety reduction skills and performance enhancement interventions. Determining if the six elements of stage fright affect pre-performance anxiety in sport can help both the athlete and coach better understand the psychological antecedents to performance.

Identifying the fact that athletics should no longer be uniquely orientated to the muscular demands of the athlete, but that the psychological demands are important aspects of athletes preparation was of significance. Coaches and athletes may become more educated that stage fright exists for everyone to some degree and that experiencing this emotion is not abnormal and can actually be healthy if managed properly. This knowledge could lead to coping strategies that would address the specific anxiety evoking elements that are

causing particular problems for an athlete who has become extraordinarily anxious prior to performing. Also, by becoming more aware of the types of psychological determinants that evoke anxiety in an athlete, coaches will be better able to ready their player or team prior to the "big game." In fact, in many former Eastern block countries it is the coach's task to introduce various means of coping strategies to develop the athlete's competitive readiness (Turetskii, 1988). This is beneficial due to the fact that excessive anxiety is one of the greatest obstacles to optimal performance (Taylor & Taylor, 1987).

Lastly, the significance of this study comes from the fact that the interviews Stebbins (1981) conducted in his investigation were of an informal nature. He did not use a consistent set of questions for either the baseball players or theater actors when he was conducting the interviews (personal communication, May 13, 1992). Although, Stebbins gained valuable information from the informal interviews, this investigation utilized scheduled questions for all subjects allowing for more direct questions and consistent responses from the subjects in determining the factors that affect pre-performance anxiety.

Also, Stebbins (1981) studied baseball players and theater actors when making his observations of stage fright, in comparison this study investigated tennis players. The significance of this difference is that tennis is an individual sport where as baseball is a team sport. Research has demonstrated that the anxiety level of the athletes does differ for different sports and competitive conditions (Krane & Williams, 1987). For example, athletes in subjectively scored sports have higher cognitive anxiety than athletes in objectively scored sports (Krane & Williams, 1987). Similar differences found between individual

and team sports would provide further insight into how pre-performance state anxiety affects other sport populations.

Statement of the Problem

The purpose of this investigation was to determine whether the elements of stage fright are perceived differently or similarly by high and low state anxious tennis players. The CSAI-2 was used to determine the level of cognitive and somatic anxiety each tennis player experienced prior to an intercollegiate tennis match. Post game interviews with each player were then conducted to determine which elements of stage fright, if any, were perceived as threatening. Comparisons of the interview statements were then made between the players who had combined high cognitive (CSAI-cog) and somatic (CSAI-som) anxiety scores to that of the tennis players who had combined low CSAI-cog and CSAI-som scores.

Hypotheses

The hypotheses investigated in this study were: 1) The high and low pre-performance state anxious groups will not differ in their perceptions of the individual effects of each of the six elements of stage fright; 2) the high state anxious group will not perceive any of the six elements of stage fright as threatening prior to an intercollegiate tennis match; 3) the high and low pre-performance state anxious groups will not differ in the type or amount of the six elements of stage fright that effect them.

Definition of Terms

Control: The critical activity is seen by the audience as within the performer's control. The performer must also believe that the audience holds this expectation (Stebbins, 1981).

Cross-interview analysis: A procedure that groups together answers from different participants to common questions given during an interview (Patton, 1990).

Empathy: The ability to understand how a person feels about something (Gorden, 1987).

Evaluative audience: The critical activity must be conducted before an audience which is considered by the person to be able to evaluate her or his efforts. The spectators must be sophisticated enough about the activities taking place before them to spot at least some flaws in the performer's execution (Stebbins, 1981).

Freezing: The performer fears he or she may lose confidence, becoming unable to act, speak, or think at the level necessary to conduct the activity as expected (Stebbins, 1981).

Importance: Importance comes from taking the activity seriously, from the thought that an inadequate performance is embarrassing and out of step with one's image (Stebbins, 1981).

Imminence: The start of the critical activity must be close enough at hand to dominate the individual's thoughts (Stebbins, 1981).

Ladder position: A position or number a player is assigned on the team determined by order of ability. There are six positions on a team, with the best player holding the number one position, the second best player at number two,

and so on through all six positions (California Community College Commission on Athletics, 1992).

Northern California Community College: All community colleges north of Fresno, California and within the California state line are considered to be part of Northern California (California Community College Commission on Athletics, 1992).

Stage fright: A severe anxiety attack, a form of panic anxiety (Aaron, 1986).

Standardized open ended interview: An interview procedure which consists of taking each participant through the same sequence by asking the same questions with essentially the same words (Patton, 1980).

Task difficulty: The critical activity must be sufficiently difficult to be potentially unmanageable when under pressure; consequently the performer is unable to to conduct the activity well before a knowledgeable audience (Stebbins, 1981).

Delimitations

This study was delimited to 36 male and female tennis players currently participating on intercollegiate Community College tennis teams in Northern California. Only the six best players on each team were selected for this study. The results of this study may not apply to lesser experienced players, who may or may not feel the same pressures as more experienced collegiate players (Mahoney & Meyers, 1989). The ages of the subjects were delimited to an age range of 18 years and up. All subjects competed before an evaluative audience. Only the data from high or low anxious players were analyzed. Analysis was restricted to the six factors of stage fright.

Limitations

The location of the match sites were different for each team. A match played at home or on the road could have an affect on anxiety. Coaching styles were not controlled for and could have consequences in regards to the players anxiety levels. In fact, coaches that improperly discuss players' nervousness can actually increase anxiety levels (Leith, 1988). The ability levels of the teams were not controlled. Teams close in abilities and league standings may have been affected differently from teams not close in ability or league standings. This study is limited to the ability of the subjects to make an accurate self evaluation of themselves. A standardized open-ended interview process was employed. This particular kind of interview limited flexibility and spontaneity in the interview process. The ability of the interviewer to empathize and introduce probes to invoke an appropriate response from the participant limited this study. The interviewer's ability to empathize with the participant is crucial for the success of the interview (Gorden, 1987). Also, the ability of the investigator to interpret the data further limited this study.

CHAPTER 2

Review of Literature

Psychological threat results from an imbalance between the situational demands and personal resources, or when opportunities, values and goals that are significant to the individual are perceived as endangered (Lazarus, 1966; Martens, 1977). Although the sport setting confronts individuals with a variety of demands that may be perceived as threatening (Passer, 1983), the demands that are most threatening to the competition process are the those calling for a skillful demonstration, the uncertainty of the outcome, and evaluation of the performer's ability (Martens, Gill, Simon, & Scanlan, 1975; Scanlan, 1978).

Similarly, Stebbins' (1981) observations revealed that stage fright develops when the performer knows in advanced that the performance of this critical activity could place him or her in one or more of three threatening situations: where he or she is open to a total inspection of self by others, where a slip or flaw invites a challenge to a claimed identity, or where he or she must perform exceptionally well. Stebbins' observations and interviews with 28 baseball players and 27 theater actors suggests that six elements must pertain if these three situations are to be defined as threatening. These elements are importance, imminence, evaluative audience, control, difficulty, and freezing. Stebbins (1981) states that when these six preconditions are present, the performer feels a raised level of anxiety prior to performance and the result is termed stage fright.

Past research has shown that these six preconditions can raise the anxiety level of the performer (e.g., Gruber & Beauchamp,1979; Jones & Cale,1989b; Smith, Burwitz, & Jakeman, 1988). However, research has only tested these preconditions singularly or as a smaller sub-group of the six elements.

Consequently, this review of literature addresses each of the six preconditions as a separate variable.

Importance

Stebbins (1981) indicated that one factor of stage fright is the concept of importance. Stebbins (1981) stated that the critical activity must be important to the individual and that importance comes from taking the critical activity seriously. Similarly, Iso-Ahola and Hatfield (1986) have indicated that one of the elements necessary for the elicitation of the anxiety response in sport is that the sport situation is highly meaningful to the athlete. Importance can be defined as the extent which a person values attaining a favorable outcome (Martens et al., 1990). Importance is a combination of both extrinsic and intrinsic values held by the individual for obtaining that positive outcome (Martens et al., 1990). The expectancy of receiving $100,000 for winning a tennis tournament, or perhaps winning a gold medal in the Olympics are example of extrinsic rewards (Martens et al., 1990). Feelings of personal satisfaction, competence and self-esteem are all valued by the athlete as intrinsic rewards (Martens et al., 1990).

In support of Stebbins (1981), research findings have shown that an increase in state anxiety can be due to the importance of the competition (Dowthwaite & Armstrong, 1984; Gruber & Beauchamp, 1979). Gruber and Beauchamp (1979), measured state anxiety of 12 members of a women's varsity basketball team using the CSAI. The subjects were measured before three easy and three crucial games. The varying levels of the importance for the contests were determined by the subjects' evaluation of the other teams. The subjects were familiar with past season records of all the teams and were

aware of the personnel on each team. Prior to the start of the season the CSAI was administered before and after two practice sessions of all 12 subjects in an effort to obtain a baseline CSAI score. There were no differences in the pre-practice mean scores. Prior to the six games the subjects completed the CSAI before taking the floor for pre-game warm-ups. Results indicated that the more important or crucial games had an effect on the player's state anxiety. The subjects were significantly more anxious before the crucial games when compared to the less important games. In discussion, Gruber and Beauchamp (1979) indicated that those situations which pose direct of implied threats to the subject's self-esteem due to the importance and evaluation of the contest are effective arousal manipulators.

Dowthwaite and Armstrong (1984), further investigated the relationship between the importance of a competitive soccer match and the anxiety levels of male soccer players. The subjects were 11 members of the Worcester College team. The players ranged in age from 18 to 29 years. Subjects filled out the CSAI questionnaire 10 minutes before and immediately after each of three games to ascertain their level of state anxiety before and after each game. Subjects also filled out the SCAT before the first and third game to determine their trait anxiety in a natural sport setting. Two of the three games were judged to be easy or less important and the third game was determined to be the crucial or an important match. The results indicated that the subjects were more anxious prior to the crucial game than they were for the easy games. These results supported the researchers hypothesis that male college soccer players experience different anxiety levels according to the importance of the game.

In comparison of these two experiments both males and females were effected similarly in relationship to how the importance of the event affected

their anxiety. Although these two investigations took place employing different sports and only with single sex populations, the interpretation of these results would indicate to support Stebbins' (1981) observations of importance of the event. Both the female volleyball players' and the male soccer players' anxiety increased as the importance of the event increased. In contrast, when the event was not important the anxiety responses of these athletes did not increase significantly.

Further evidence that the importance of an event can raise the anxiety level in a performer can be seen through coping strategies that deal with anxiety. Reviews of coping strategies have indicated that by de-emphasizing the importance of the event a reduction of anxiety will occur within the performer (Buceta, 1985; Turetskii, 1986).

Buceta (1985) states, when the amount of stress becomes excessive, various kinds of impairments may occur in the individual's functioning at physiological, behavioral, affective, cognitive levels. At the cognitive level excessive stress appears to activate a dysfunctional system of thinking (Buceta, 1985). This in turn is responsible for coding, categorizing and evaluating internal and external stimuli by faulty information processing (Buceta, 1985). For example, the value of a particular competition is often overestimated by athletes, with the subsequent increase of the threat of failing. Buceta (1985) believes athletes can develop a strong pattern of overestimating the importance of the event, and the coach should increase the athlete's objectivity and perspective of the event. By training athletes to expand their perspective and to judge their experiences objectively upon empirical data, the athlete will realize that the upcoming competition is important, but not overly important. The

increased perspective provides the athlete with a more relative concept of the magnitude of importance.

Similarly, Turetskii (1986) states that the basic component in training fencers for contests is psychological preparation. The aim is to insure a stable level of behavior by the athlete during contests and to create the prerequisites for achieving an excellent outcome. The coach's task is to use various means of psychological influence to develop the athlete's competitive readiness. In the final state of preparation for contests, the coach strives to preserve the optimal level of stimulation in the athlete. This idea is similar to Yerkes and Dodson's (1908) inverted-U theory. The coach uses a desensitization method to control the fencer's psychological pre-contest state. In essence, Turetskii is desensitizing the stress factors that evoke an anxiety state or negative emotional response in the athlete. This desensitization method controls for many factors, one of which is the importance of the event. In discussion with the athlete the coach deliberately understates the significance of the impending contests. Turetskii (1986) found that by devaluing the importance of the activity the athletes lowered their anxiety level to a more optimal level.

In summary, research has shown the importance of the competition can raise the level of state anxiety in an individual (Dowthwaite & Armstrong, 1984; Gruber & Beauchamp, 1979). Also, coping strategies have been used to desensitize the importance of the event which has been shown to reduce pre-performance state anxiety (Buceta, 1985; Turetskii, 1986). The interpretation of these findings lends support to Stebbins' (1981) observation that the importance of the event is an integral part of stage fright.

Imminence

Another element Stebbins (1981) indicates is a contributing factor to stage fright is imminence. Stebbins (1981) states that an individual begins to feel threatened by the event when the critical activity is close enough at hand to dominate the performer's thoughts. For example, the threatening situation must not be to distant that other more immediate thoughts occupy the person's mind. In other words the activity must be seen as imminent.

The effects of imminence upon a critical or stressful event have been shown through both physiological and psychological measures of anxiety (Breznitz, 1967; Gill, 1980; Jones & Cale, 1989b; Krane & Williams, 1987; Nomikos, Opton, Averill, & Lazarus, 1968). Breznitz (1967) has shown that the longer the duration time is prior to the stressful event, the more anxious an individual will be approximately one minute prior to that event. Employing three groups of 20 subjects each, Breznitz (1967) instructed the subjects to wait for a strong electric shock that would be given exactly at 3 minutes for the short anticipation group, at 6 minutes for the medium anticipation group, and at 12 minutes for the long anticipation group. The subjects were requested to look at the watch and count the minutes. Breznitz (1967) found that the longer the interval was prior to an electric shock, the higher the subjects' heart rates were in the last minute of anticipation. Breznitz (1967) stated that when subject's have no control over a future stressful event, fear of the approaching stress is experienced by helplessness. Under these circumstances long durations of anticipation may facilitate the growth of helplessness. While physiological arousal and pre-performance anxiety are not the same, Breznitz's (1967) findings and conclusions do support the fact that anticipation and the control of a critical activity are able to bring about an elevated physiological response.

Consistent with Breznitz (1967), Nomikos et al. (1968) have also shown that the longer the anticipation prior to the event, the greater the anxiety reaction will be from the individual. Their study showed most of the stress reactions of the subjects occurred in the periods of anticipation prior to the event rather than during the actual event. These finding are consistent with Stebbins' (1981) observations that stage fright generally disappears once the activity has begun.

Research in sports competition has shown a rise in arousal level as the start of the competition approached (Gill, 1980). Gill (1980) recorded baseline measurements of members of the University of Illinois women's intercollegiate volleyball team at a practice session one week prior to a tournament. Three measurements were administered. An anxiety inventory was administered first, and then sudorimeter and palmer sweat prints were taken simultaneously. Measurements were assessed again at the tournament site within 30 minutes of the start of the first match. All three measures increased significantly from the practice session to competition. These findings indicate that as the starting time of tournament approached there was a significant rise in the arousal state of the players.

Further research investigating the psychological relationship between anxiety and the imminence of the event has shown mixed results. Researchers have shown that cognitive anxiety will decrease in female golfers (Krane & Williams, 1987), remain stable in female volleyball players (Gould et al., 1984), male hockey players (Jones & Cale, 1989a), male soccer, rugby, and squash players (Jones & Cale, 1989b), male cricket players (Jones, Cale, & Kerwin, 1988), or rise in female gymnasts (Krane & Williams, 1987) and female field hockey, netball, and squash players (Jones & Cale, 1989b) as the event draws nearer. Researchers investigating somatic anxiety have shown that there was

no change in female golfers (Krane & Williams, 1987) but an increase in female volleyball players (Gould et al.,1984), male hockey players (Jones & Cale, 1989a), male soccer, rugby, and squash players and female field hockey, netball, and squash players (Jones & Cale, 1989b), male cricket players (Jones et al., 1988), and female gymnasts (Krane & Williams, 1987), as the event draws near.

The investigation by Jones and Cale (1989b) of male soccer, rugby, and squash players, and female field hockey, netball, and squash players provides a good example of how females and males react to the anticipation of a sport activity. The purpose of the experiment was to compare temporal patterning of cognitive anxiety, somatic anxiety, and self-confidence in males and females during the period preceding an important competition. The subjects were 40 male and female college athletes. Subjects responded to the CSAI-2 questionnaire on six different occasions leading up to their competitive event. The time scale that subjects responded to the questionnaire was 2 weeks, 1 week, 2 days, 1 day, 2 hours, and within 30 minutes before the event. The results indicated that females scored differently from males on all three CSAI-2 sub-scales. Females showed a progressive increase in cognitive anxiety over time as the competition neared, whereas the males experienced no change across time. The interaction between gender and time to competition for somatic anxiety, indicated that females' somatic anxiety elevated earlier in the pre-competition period than did the males. However, there were no significant differences in somatic anxiety between genders at the 2 hour or 30 minute testing period. Also, self-confidence remained stable in the males but decreased in the females on the day of competition.

In summary, cognitive anxiety has been found to increase as early as 2 days prior to the event (Jones & Cale,1989b). Somatic anxiety begins to show a significant level of increase 2 hours before the event and continues to rise until the last minute before the event, where it has been recorded to be the highest (Breznitz, 1967). Generally, females either remain stable or are elevated in cognitive anxiety as the event draws near (Gould et al., 1984; Jones & Cale, 1989b; Krane & Williams, 1987), whereas the males' cognitive anxiety was found to remain stable prior to the event (Jones & Cale, 1989a; Jones & Cale, 1989b; Jones et al.,1988). However, in general it was found that both the males' and females' level of somatic anxiety increased prior to the event (Gould et al.,1984; Jones & Cale, 1989a; Jones & Cale, 1989b; Jones et al., 1988; Krane & Williams, 1987). These findings support Stebbins' (1981) observations that imminence of the event can be threatening enough to raise anxiety levels.

Evaluative Audience

Stebbins (1981) states that an evaluative audience is a contributing factor to the cause of stage fright. In fact, a specific cause determining the onset of anxiety prior to a solo musical performance (Appel,1974) or a sporting event (Costa, Bonaccorsi, & Scrimali, 1984) has been determined to be performing before an evaluative audience. An evaluative audience has been shown to affect the individual in a variety of conditions. For example, the ability to learn a novel task was inhibited (Haas & Roberts, 1975), impairment of performance (Paulus, Shannon, Wilson, & Boone, 1972), and gender differences (Weinberg, Poteet, Morrow, & Jackson, 1982) have been found in reaction to an evaluative audience. Also, just the anticipation of knowing an audience is present can

affect a performer's anxiety (Paulus & Cornelius, 1974; Paulus & Murdoch, 1971).

Specifically, an evaluative audience is defined as an audience that is considered by the performer as able to evaluate his or her efforts (Stebbins, 1981). Research lends support for this observation. Sasfy and Okun (1974) had expert and non-expert audiences view subjects performing a motor task in various conditions. Subjects were told of the supposed expertise level of the audience. They found that all the non-expert conditions failed to affect performance, while the expert audiences impaired performance. This finding supports the notion that perceived potential for evaluation is partly a function of the nature and characteristics of an audience.

Examples of spectators considered as having the knowledge and ability to critically evaluate a performance are, parents, coaches, fellow performers, or well informed audiences (Gould & Weinberg, 1985; Passer, 1983; Stebbins, 1981). Also, the size of an audience can be as little as one person, such as a coach (Gould & Weinberg, 1985) to a large group of spectators in the stands (Stebbins, 1981).

Much research has been conducted on performances before an audience and has found that performers are both physiologically and psychologically affected. Related to physiological arousal is drive theory. Drive theory has been used to explain how the physical side effects of anxiety affect anxiety (Nideffer, 1989). Drive theory was first postulated by Hull (1943) and then further modified by Spence and Spence (1966). The basic assumption of the collaborative theory known as the Hull-Spence drive theory is: Performance = Habit x Drive. According to the theory an increase in drive (arousal) will create the probability that the dominant response will increase in frequency. During

the early stages of learning, the dominant response will most likely be incorrect, because the skill has not been mastered, but when the task has been mastered or is well learned, the dominant response will most likely be the correct response. Thus, increases in drive will impair performance if the task is not well learned, and will facilitate performance if the task has been well learned.

Zajonc (1965) has used the Hull-Spence drive theory to hypothesize how the presence of spectators affects performance. Zajonc (1965) proposed that the mere presence of spectators would increase an individual's drive arousal and hence facilitate performance on well learned tasks and hinder performance on poorly learned tasks.

However, upon investigation, Cottrell, Wack, Sekerak, and Rittle (1968) found that the mere physical presence of persons who were blindfolded, and who therefore could not assess the accuracy of the subject's responses to the visual stimuli did not enhance the emission of the dominant response. Cottrell et al. (1968) suggested that in order to enhance the emission of dominant responses, the individual must be able to anticipate the fact that spectators will be able to evaluate positive or negative outcomes. This suggests that the evaluation potential is what affects the performer and is similar to what Stebbins (1981) has indicated in his observations.

Paulus and Murdoch (1971) support this hypothesis, that anticipated evaluation of one's performance by others can produce responses governed by the strongest habits. In their experiment, when subjects were in the alone condition and a non-evaluative audience condition, it did not lead to significant enhancement of the dominant responses, but when subjects were in the presence of an evaluative audience it did elevate their arousal and enhance the emission of the dominant responses.

However, there has been some question to the accuracy of Drive theory, in whether a linear relationship exists between arousal and performance (Landers & Boutcher, 1986). More recently, an alternative nonlinear theory has generated much support in relationship to anxiety and performance.

Research has shown that there is an intermediate or moderate level of arousal for an individual to attain optimal performance. Departures in either direction from this intermediate level, to little or to much arousal, will result in poorer performances regardless of the individuals expertise in the task. This theory has been called the inverted-U (Yerkes & Dodson, 1908). However, with stage fright one is dealing with an excessive amount of arousal or anxiety, over and beyond the optimal level. An example of how an evaluative audience can raise a performer's level of anxiety beyond the optimal level and cause a poor performance is seen in the investigation by Paulus et al. (1972).

Paulus et al. (1972) conducted two studies where gymnastic students were asked to perform a routine before an audience. The results of the two experiments were quite different when the subjects knew prior to their performance an audience would be present.

In the first experiment on day one, all the students performed the same routine under alone conditions. On day two, one half of the students were asked to perform the routine alone (alone-alone). The other half of the students were asked to perform the routine in front of an audience of 17 spectators (alone-audience). Contrary to their predictions, Paulus et al. (1972) found no significant difference between the two groups. They hypothesized that some degree of anticipation time may be necessary for audience effects to occur. They proposed that a short warning period would lead to greater fear-arousal and would be responsible for audience effects on performance.

The second experiment was an exact replication of Experiment 1, with one exception of the audience manipulation. On the second day, the alone-audience subjects were told of the presence of spectators one minute prior to their performance. This time, the results indicated that there was a significant performance decrement in the alone-audience condition and not in the alone-alone condition.

Paulus et al. (1972) have shown that there was not a significant performance decrement when an audience was present, but the fact that the subjects were warned about the audience prior to their performance caused a significant performance decrement. These results support Stebbins' theory that both an evaluative audience and the concept of imminence, are capable of raising the level of anxiety in a performer, thus causing a decrement in performance. More recently researchers investigating both musical (Neftel et al., 1982) and motor performances (Smith et al., 1988) have found physiological effects related to somatic anxiety.

Neftel et al. (1982) examined 22 musicians performing both in a public and non-public situation. The purpose of this investigation was to determine the effect of sympathetic activation on specific motor performances and its feedback on stage fright related emotions in these musicians with or without beta blockade. The researchers used a double blind procedure where the subjects were randomly divided into two groups. One group group received an oral dose of 100 mg of atenolol and the other group received a placebo. Continuous heart rate, stage fright, motor performance, and urine catecholomine levels were all assessed 5 minutes prior to the appearance and until the end of the performance. The researchers used a intra-individual design. All 11 subjects who took the atenolol performed both with and without

and audience. Similarly, all 11 subjects in the placebo group performed both with and without an audience. The results indicated, in the audience condition the placebo group showed a significant increase in heart rate, catecholomines, and a significant impairment in motor ability as compared to the performance with no audience present. The experimental group in the audience condition showed that their heart rates were significantly lower under the beta blockade than the placebo group in the audience condition. The difference in the stage fright level of the placebo and experimental groups became evident in the audience condition but had no effect without an audience. Although, the main interest of this experiment examined the effects of beta blockers upon a stressful situation, the authors felt that an audience was threatening enough to promote stress in an individual. This assumption was supported by the experimental findings that the placebo group did show physiological stress which fluctuated significantly between the two audience conditions. This evidence indicates that physiological stress is induced by an audience.

Further evidence that audiences affect physiological pre-performance anxiety can be seen in the Smith et al. (1988) study. Smith et al. (1988) examined 27 male subjects who volunteered to practice three motor performance tests for 5 weeks. Following stabilization of the performance tests, subjects entered an experimental period where they performed the tests alone before an evaluative audience on one occasion and again before an evaluative audience against a matched opponent on the final occasion. Smith et al. (1988) stated that one purpose the audience served was to produce an intermediate level of imposed stress on the performers. The results indicated that significant pre-competition elevations in state anxiety, heart rate, and adrenaline levels were observed, supporting the notion that the audience

exposure was perceived as stressful by the subjects. Significant correlations were obtained between adrenaline levels and both state and trait anxiety scores.

Trait anxiety can also determine how an individual will react to the fear of evaluation (Craske & Craig, 1984; Passer, 1983; Rainey, Conklin, & Rainey, 1987). Craske and Craig (1984) divided 40 anxious and non-anxious pianists into two groups that played alone and before an evaluative audience. The audience condition elicited intense emotional responses from the anxious group, while the non-anxious group were relatively non-reactive.

Similarly, Passer (1983) investigated several causes of perceived threat among 316 high and low competitive trait anxious youth soccer players. One of the causes that Passer (1983) examined was fear of evaluation. The other causes examined were fear of failure, perceived competence and self-esteem. Seven days prior to the start of the soccer season players were administered a questionnaire to assess their fear of evaluation, as well as their fear of failure and self-esteem. The results indicated that high trait anxious players worried more than low anxious players about not playing well, losing, and being evaluated by parents, coaches and teammates. Passer (1983) concluded that fear of evaluation represents one of the significant sources of threat to competitive trait-anxious soccer players.

Further examination by Rainey et al. (1987) supported the results of Passer's (1983) investigation. The purpose of the Rainey et al. (1987) investigation was to replicate the fear of evaluation and fear of failure portions of Passer's (1983) study, but with a more heterogeneous sample. Although no significant differences were found between males and females in relationship to

fear of evaluation, the findings were similar to Passer's (1983) results for the high trait anxious subjects.

In summary, research results indicate that an audience can affect an individual in many ways, including the impairment of performance and by an increased anxiety level (Neftel et al., 1982; Paulus et al., 1972; Smith et al., 1988). However, the performing situation will not be perceived as threatening unless the performer believes the audience has the ability to critically evaluate the performance (Sasfy & Okun, 1974). An evaluative audience has been found to be threatening in both musical (Appel,1974) and sport performances (Costa et al., 1984). Also, the level at which an individual experiences pre-performance anxiety when an audience is present has been found to be related to their trait anxiety (Passer, 1983).

Control

Stebbins (1981) observed that a further contributor to stage fright is the concept of control. In order for the concept of control to be perceived as stressful by the individual, the critical activity must be seen by the audience as within the individuals control and the individual must also believe that the audience holds this expectation (Stebbins, 1981).

Personal control can be broadly defined as the belief that one can exert influence over the environment (Ganster, 1987, cited in Perrewe, Nelson, & Maroney, 1990). The concept of personal control differs from locus of control (Rotter, 1966) in that personal control is more situationally determined. Locus of control is considered an individual trait. Although related, Stebbins' observations are concerned with specific situations. Stebbins (1981) provides a good example of this when he observes the actress who worries before each

performance over the possible behavior of a dog she is required to carry on stage. The woman worries because she is uncertain of the animals behavior and it would be difficult for her to control every move of the animal. Further, the woman worries that the audience expects her to do just that.

Havas (1976) also maintains that an individual's control over the environment plays a role in stage fright. Havas (1976) states that in stage fright individuals are afraid to go out to face the audience because they have a feeling of helplessness and uncertainty about doing justice to their artistic abilities. The example of the actress provided by Stebbins (1981) supports this idea. The woman worries because she is uncertain she will be able to control the dogs' behavior. She would be helpless if the dog was to break free and ran across the stage, it would ruin the scene.

Numerous studies have found that personal control can reduce both physiological and psychological stress and in many cases increase motivation, performance and satisfaction (Glass, Reim, & Singer, 1971; Perrewe & Ganster, 1989). In general there is rather compelling evidence that personal control is associated with a number of positive outcomes and a lack of control with experienced stress and ill health.

For example, Gal-Or, Tenenbaum, Furst, and Sherzer (1985) have shown how the relationships between body image, personal self-control, and anxiety affect performance of parachute jumping skills. Their results show that subjects with high personal self-control perform better than subjects with low self-control in highly stressful situations which evoke a high level of anxiety.

Furthermore, Taylor, Helgeson, Reed, and Skokan (1991) have found that patients with chronic and advancing disease generate perceptions that they can control aspects of their illness. Their research suggests that beliefs in personal

control generally appear to be adaptive. They found that perceptions of control appear to reduce anxiety and depression.

Similarly in sport, Buceta (1985) states that the lack of control over one's own performance or of the competition may evoke a stress response if the occurrence of an aversive event was to develop unexpectedly. This is analogous to the woman's anxiety of whether or not the dog was to break free unexpectedly and ruin the scene. Buceta (1985) states that a high level of control over an event helps to master and predict its outcome. In fact, individuals high in personal control behaviors are better able to cope with stressful events (Rosenbaum & Rolnick, 1983).

Lastly, there is evidence to suggest that simply the belief that one can exercise control be sufficient to reduce anxiety (Blankstein, Flett, & Batten, 1989). Research consistent with this concept has found that individuals high in test anxiety self-appraised themselves as experiencing reduced personal control in problem solving situations (Blankstein et al., 1989). It is possible that individuals who perceive themselves as having control actually interpret or perceive a situation as having fewer pressures and conflicts than individuals who do not perceive themselves as having control (Perrewe et al., 1990).

In summary, research has shown that personal control over the environmental conditions contributes to many positive outcomes, and that when individuals perceive a loss of control it may evoke a stress response (Buceta, 1985). Individuals high in personal control have been shown to improve performance (Gal-Or & Tenenbaum, 1986) and reduce anxiety and depression in illness (Taylor et al., 1991). Furthermore, just the belief that one can exercise control can reduce anxiety (Perrewe et al., 1990).

Task Difficulty

Tasks obviously have different degrees of difficulty. Fiske and Maddi (1961) have defined a difficult task, as a task that has several necessary conditions to complete the performance. For example, a difficult intellectual task may require the possession of certain skills and knowledge gained from prior experience, certain innate capacities, an appropriate orientation of motivation, and an appropriate activation level (Fiske & Maddi, 1961). Similar requirements have been found for a difficult motor task. Adam and van Weiringen (1988) found that a simple throwing task at a target was more difficult when the target was moving. Thus, the timing element of hitting the moving target along with the throwing condition, created an additional condition and a more difficult task.

Stebbins (1981) has observed that a contributing factor to stage fright is that the critical activity is sufficiently difficult and potentially unmanageable to conduct well when the individual is under pressure to do so. Support for Stebbins' (1981) observations have been shown indirectly through the arousal-performance research. Although arousal and anxiety are not synonymous concepts, they both reflect a heightened or elevated response on the part of the individual (Tapasak, Roodin, & Vaught, 1978). In fact, Hardy and Crace (1990) have stated that pre-competitive anxiety is a state of arousal.

Yerkes and Dodson (1908) have shown that an arousal-task difficulty interaction exists, but it is the arousal level of the performer that effects how a more difficult task will be performed, rather than how the difficulty of the task effects the performers' level of arousal. In their initial study of the inverted-U that there is an optimal level of arousal for varying degrees of task difficulty. Yerkes and Dodson (1908) found that the optimal level of arousal was lower for more

difficult tasks than for simple ones to obtain the best performance. This finding was again reestablished by Broadhurst (1957).

Fiske and Maddi (1961) have additionally postulated that the more difficult the task the narrower the range of arousal will have to be for optimal performance. Also, the greater the physical energy requirements of the task, when combined with increasing task difficulty will reduce the range of arousal for optimal performance even further (Fiske, & Maddi, 1961). For example, sports such as tennis, basketball, and wrestling, have a narrow range of optimal arousal for the best performance, because they require a large amount of physical energy and are high in task difficulty, thus making it easy to understand why it is hard to maintain a high level of performance for long periods of time in these sports (Fiske & Maddi, 1961).

Oxendine (1970) further indicates that a high level of arousal interferes with performances involving difficult tasks using fine muscle movements, coordination, steadiness, and general concentration. Conversely, Oxendine (1970) suggests that a high level of arousal is essential for optimal performance in less difficult tasks that involve gross motor activities, such as, strength, endurance and speed. However, this does not imply that an individual involved in these activities would not experience pre-performance anxiety, it would just mean an individual in these activities would be able to tolerate higher levels of arousal prior to their performance before performance is curtailed (Landers & Boutcher, 1986). Lastly, Oxendine (1970) stated that a slightly above average level of arousal is preferable to a normal or sub-normal arousal state for all motor tasks as indicated by Yerkes and Dodson (1908).

Although this research supports the fact that different arousal levels effect performance of tasks with varying degrees of difficulty, it has not shown how

task difficulty itself can raise the level of anxiety in the individual. Unfortunately, this research is limited.

However, Buckelew and Hannay (1986) have shown that the difficulty level of neuropsychological tasks are associated with the anxiety level in individuals. Buckelew and Hannay (1986) administered tasks of varying levels of difficulty to 120 subjects. The tasks included Digit Symbol tests, word fluency tests, Block Design tests, and Finger Tapping tests. During each task, subjects rated their state anxiety from the Spielberger State-Trait Anxiety Inventory and rated the difficulty level of each task on a scale from one to five. The main effect of state anxiety was significant. State anxiety interfered in the performance of tasks. The tasks that subjects rated as significantly more difficult, demonstrated significantly higher levels of state anxiety. These findings are consistent with the state-trait anxiety theory (Spielberger, Gorsuch, & Luchene, 1970) and Stebbins' (1981) observations which predicts that there is more state anxiety associated with tasks of greater difficulty and therefore poorer task performance.

Further evidence that task difficulty effects an individual's anxiety level has been shown through facial asymmetries (Schiff & MacDonald, 1990). Facial asymmetries have been used to detect the relationship between emotional arousal and hemispheric activity (Rinn, 1984). There have been reports that all emotions are expressed on the left side of the face (Schiff & MacDonald, 1990), while other reports have indicated that only the negative emotions are expressed more intensely on the left side of the face and that positive emotions are expressed more intensely on the right side of the face. Schiff and MacDonald (1990) aroused emotion in their subjects by using either an easy or difficult verbal task. They believed that the difficultly of the task would determine the emotional reactions of the subjects. When the task was difficult subjects

would experience considerable frustration and when the task was easy subjects would perform the task with ease and comfort. The subjects were 26 psychology students. Following the verbal tasks subjects completed the Spielberger state anxiety questionnaire. Schiff and MacDonald (1990) found support that the more difficult tasks were associated with higher anxiety. The results indicated that the subjects who performed the difficult verbal task reported unpleasant emotions, tested high on state anxiety and showed greater changes in left sided composite photographs compared to the relaxed state. Subjects who performed the easy version of the same task reported positive emotions, tested significantly lower on state anxiety and showed greater changes in right sided composites.

The research thus far investigating task difficulty has been manipulated through either cognitive or verbal tasks. However, Buceta (1985) has identified several causes of anxiety and stress in motor skills with athletes, one of them being task difficulty. Buceta (1985) found that the more difficult the task the more stress the athlete will experience. Buceta (1985) stated that one way to minimize task complexity stress is for the athlete is to allow enough time to adequately train to meet the demands of the task and feel confident the task is within their control. This coping strategy desensitizes task difficulty, loss of control and the fear of freezing, many of the elements Stebbins (1981) claims produce stage fright.

In summary, the arousal-task difficulty relationship has shown that the arousal level needed for optimal performance changes as the difficulty of the task changes (Fiske & Maddi, 1961; Oxendine, 1970; Yerkes & Dodson, 1908). Furthermore, research has indicated that the difficulty level of the task is related to the anxiety level of the individual. Tasks of low difficulty show minimal levels

of anxiety; however, more difficult task increase the anxiety level of the subject. This result has been found with neuropsychological tasks (Buckelew & Hannay, 1986), verbal tasks (Schiff & MacDonald, 1990), and motor tasks (Buceta, 1985).

Freezing

Another contributing element to stage fright is "freezing." Stebbins (1981) states that if the performer is apprehensive that he or she will freeze, the individual may loose confidence, becoming unable to act, speak or think at a level necessary to conduct the activity as expected by the audience. Other research support the idea that the anticipation of "freezing" can raise the level of anxiety in the performer prior to performance (Daniel, 1981; Wertz, 1986).

Although, Daniel (1981) uses the term "choking" rather than "freezing," his definition of "choking" is very similar to that of Stebbins' (1981) definition of "freezing." Daniel (1981) defines "choking," as the inability to perform up to previously exhibited standards. He states that stress is part of the "choking" factor and that the most important thing in many stressors is the perception of the stress or stressor by the athlete. This perception will determine the effect the stressor has on the performance. Daniel approaches the very words of Stebbins by stating that athletes are afraid of making mistakes or looking foolish by not living up to expectations.

Wertz (1986), states that "choking" occurs when one can not handle the pressure. Wertz (1986) indicates that "choking" subtracts from the action to take place. He believes that "choking" is a loss of control over one's bodily mobility and is in agreement with Stebbins (1981) that the individual is unable to act,

speak, or think at a level necessary to conduct the activity as expected by the audience.

Evidence from research has shown how talking about the "choke" prior to the performance effected the motor performance of male athletes (Leith, 1988). Leith (1988) examined a sample of eighty male physical education students aged 18-20 years took part in this study. The task or dependent variable was the number of successful free throws made out of 25 attempts. The independent variable was was the presence or absence of a brief talk about the "choke." The Solomon-Four group design was used. A 2 X 2 ANOVA was used to analyze the data. The results indicated that there was a main treatment effect for the independent variable. That is, the groups that were talked to about the choke performed more poorly than the groups that did not receive the talk. The results suggest that talking about "choking" may be largely responsible for its occurrence. In discussion, Leith (1988) states that by talking about the "choke" the issue is more salient in the mind of the athlete and it is this increased awareness may provide enough stress to cause the performer to "freeze." Coaches, teammates, and fans are possible causes of "choking," due to their constant banter about the possibility of "choking."

Fear of failure is a broad term that can be used to associate with "freezing." Passer (1983) has described this term by stating that individuals may feel threatened by competition because they expect their own performance to be inadequate. This description parallels the definition that Stebbins (1981) used to describe "freezing." In Passer's (1983) study of male youth soccer participants, he found that fear of failure was a significant source of threat to competitive trait anxious children. Support for Passer's (1983) findings was found by Rainey et al. (1987) in their study of male and female junior high

athletes. The results indicated that fear of failure was a significant source of worry for the athletes. No significant differences were found between male and female athletes.

In summary, other definitions of the concept of "freezing" parallel the observations made by Stebbins (1981). "Freezing" is when the performer is apprehensive about the upcoming event and the individual may lose confidence to perform up to previously exhibited standards as expected by the audience (Daniel, 1981; Leith, 1988; Stebbins, 1981; Wertz, 1986). Leith (1988) has shown that the mere mention of the possibility of "choking" is enough to evoke a stress response from an individual. Lastly, fear of failure has shown to be similar to the concept of "freezing." Research has indicated that fear of failure is a significant threat (Passer, 1983; Rainey et al., 1987).

CSAI-2

The CSAI-2 was developed by Martens et al. in 1982 to measure the sub-components of state anxiety (Martens et al., 1990); specifically cognitive and somatic state anxiety. An instrument was needed to conduct research that would address issues with greater detail and that may help untangle the relationship between anxiety and sport performance. An example of such an issue is that many sport psychologists use progressive relaxation techniques to alleviate somatic anxiety on highly anxious athletes; however, if the athlete is experiencing more cognitive anxiety than somatic anxiety then a more cognitive based relaxation procedure would be more beneficial to the athlete.

Factor analysis of the final version of the CSAI-2 instrument was found to measure three subscales. The first was state anxiety, the second was cognitive anxiety and a third sub-scale was found to measure self-confidence. The CSAI-

2 demonstrated a sufficiently high degree of internal consistency for each of the subscales ranging from .79 to .90 (Martens et al., 1990). The concurrent validity of the CSAI-2 was examined by investigating the relationship between each of the CSAI-2 subscales and eight selected state and trait anxiety inventories. The coefficients obtained were highly congruent with the hypothesized relationships among the CSAI-2 subscales and scales of the related constructs (Martens et al., 1990).

Empirical research has used the CSAI-2 extensively. Research investigating the relationships between the CSAI-2 components and other interpersonal factors, interrelationships of the CSAI-2 components, temporal changes in the CSAI-2 components based on proximity of competition, antecedents of the CSAI-2 components have been identified and the relationship of the CSAI-2 components and motor performance have been examined (Martens et al., 1990). Examples of the types of sports studied using the CSAI-2 are volleyball (Gould et al., 1984), wrestling (Gould & Weinberg, 1985), gymnastics (Krane & Williams, 1987), and swimming (Burton, 1988).

Interview Process

Qualitative methods on physical education issues is scarce (Rutherford, 1990). However, to better understand topics such as anxiety in its full complexity and from the participants' experiences it is essential to incorporate qualitative methods (Scanlan, Ravizza, & Stein, 1989). Anxiety is a complex state and is subjective in nature. Qualitative data can provide depth, detail, and allow for a full understanding of how participants experience anxiety in their own terms and own environment (Scanlan et al., 1989). However, many times in quantitative studies the context of the situation is ignored, since only that

which is being measured can serve as a source of data (Rutherford, 1990). To consider behavior without its context is in effect to remove the meaning from the action (Rutherford, 1990). Clearly, one can see the impact this may have on a complex issue such as anxiety.

One type of qualitative method in research is the interview. The interviewing technique allows the participant to respond in their own words, rather than limiting their responses to relationships and questionnaire items generated from someone else's head. Examples of topics researched in physical education that have employed the interview as a source for gathering data include fitness and coronary mortality (Mundal, Erikssen, & Rodahl, 1987), racial issues (Anshel, 1990), and causes of using drugs in sport (Anshel, 1991). Topics more specific to psychological issues using the interview method include, personality and mood states of distance runners (Morgan, O'Connor, Ellickson, & Bradley, 1988), sources of enjoyment of elite female figure skaters (Scanlan et al., 1989) and psychosocial factors of male youth soccer players (Skard & Vaglum, 1989).

Research employing interviews as an information gathering tool on anxiety was not found. However, a similar construct has been researched using the interview process. A study (Cohn, 1990) investigating the sources of stress and burnout of high school golfers has been researched with the interview as the instrument to gather the information. A guided interview approach consisting of both open-ended and specific questions related to golfing experiences was used to collect data from 10 high school competitive golfers. A narrative analysis of the interviews identified a number of competitive sources of stress for the golfers. Playing a particular shot, playing up to personal standards and striving to parental expectations were the most frequently

reported comments about the sources of stress in golf. The perceived sources of burnout most frequently cited included to much practice or play, lack of enjoyment, and too much pressure from self and others to do well. The author concluded that the relationship between the sources of stress and burnout is still unknown, but the sources of stress need to be considered when investigating the causes of burnout. These findings indicate that interviews are successful in gathering information in research.

CHAPTER 3

Methods

This study investigated whether tennis players high or low in pre-performance state anxiety perceived similar or different elements of stage fright as threatening.

Subjects

In order to obtain the subjects for this thesis the following procedures were used. The subjects selected for this study were 18 male and 18 female Community College tennis players. Each Community College in Northern California supporting either men's or women's tennis teams were pooled for this study and sent a letter asking for their participation. From the colleges agreeing to participate, six colleges were randomly selected. Thirty six subjects in all were selected. The total number of subjects was determined by the fact that the six colleges selected for the study could only allow six members of their team to compete in a dual match. The subjects' ages ranged from 18 years and up. The age 18 was determined by the fact that a large majority of the students entering a community college college are above the age of 18. The upper age range was not determined because an athlete competing at a community college can participate in intercollegiate sports at any age over 18.

The subjects were assigned to either a high or low state anxious group based upon their CSAI-2 scores. Subjects scoring above the norm for collegiate athletes on both the cognitive (CSAI-cog) or somatic (CSAI-som) anxiety subscale were assigned to the high anxious group. Subjects scoring below the norm on both CSAI-cog an CSAI-som were assigned to the low anxious group.

Instruments

For the purpose of identifying each subject without revealing their identity, each form and questionnaire was coded in the right hand corner to identify the player that completed the inquiry. An abbreviation of the schools name and the players ladder position determined the code number. This procedure assured the confidentiality of each subject, as well as allowed the experimenter to identify subjects when compiling the data for the analysis of results.

Informed Consent Form

The informed consent form (see Appendix D) informed the players that their information was held in strict confidentiality, that no risk or harm would come to them by participating in this study, that participating in the survey and interview was purely voluntary and that they could withdraw from the study at any time.

CSAI-2

The CSAI-2 (see Appendix E) developed by Martens et al. (1983) was employed to determine each subject's state anxiety just prior to a competition. The CSAI-2 has been used extensively and has shown to be a valid measure of state anxiety (e.g., Burton, 1988; Gould et al., 1984; Martens et al., 1983). The concurrent validity of the cognitive subscale ranged from .47 to .74 and the somatic subscale ranged from .37 to .82 when relationship to three other state anxiety inventories.

The CSAI-2 is comprised of 27 items, with nine items in each of the three subcategories of cognitive anxiety, somatic anxiety, and self-confidence. An example of a cognitive anxiety item is, "I am concerned about this competition,"

while a somatic anxiety item is " I feel jittery." An example of a self-confidence item is "I feel at ease." Responses to each item are on a Likert scale ranging from 1 ("not at all") to 4 ("very much so"). The range of possible scores on the CSAI-2 is from 9 to 36. A score of 9 would indicate low state anxiety and a score of 36 would indicate high state anxiety for that specific anxiety subscale.

Interview Schedule

A standardized open ended interview (see Appendix F) was developed for the study. The standardized open ended interview consisted of taking each participant through the same sequence by asking the same questions with essentially the same words (Patton, 1990). A priori probes were established to obtain consistent responses in terms of depth and complexity. The questions were designed by consulting related work on stage fright (Aaron, 1986; Stebbins,1981). Also, the moderately scheduled questions allowed for topic control. Topic control is the extent to which the interviewer shifts the central focus of the discussion or changes the scope of the topic. The scheduled interview allowed for good topic control, was efficient and effective in obtaining uniform coverage, and had good precision and reliability of measurement (Gorden, 1987). Furthermore, the scheduled interview was more practical and efficient to measure a larger number of respondents.

The interview schedule consisted of a face sheet and a main body. The face sheet preceded the main body and included the demographic information. This section consisted of the coded "ID number" and an introductory statement. Also included was the player's age, gender, ladder position, years of playing experience, years playing on their college team, and whether or not they would like a copy of the results of this study. The body of the interview schedule

included questions to determine the participants' anxiety prior to their competition and if any elements of stage fright were perceived as threatening. The body of the interview was arranged into six categories. Arranging the interview schedule into categories and then exploring questions within those categories is an established procedure (Cohn, 1990; Scanlan et al., 1989). The questions were open-ended and followed with appropriate probes within the six elements of stage fright. The questions for each category were designed from the work by Stebbins (1981) and other research related to stage fright (e.g., Aaron, 1986; Deri, 1962) An example question for the category of imminence was, "What were your thoughts approximately one half-hour before the match began?"

Pilot Study

The pilot study determined if the instructions of the study were adequate and whether the items on the interview schedule seemed clear and appropriate. Any responses that were unexpected indicated that the questions were poorly worded. The population selected for the pilot study was six male intercollegiate tennis players from a nearby Community College. The interviews were conducted between 12:00 p.m. and 4:00 p.m. on a Saturday. Weather permitted the interviews to take place outside, seated away from any distractions. The interviews were tape recorded and notes were taken.

Procedures

Pre-Investigation Procedures

The participation letter sent to each community college informed the coaches of the procedures and methods of the investigation, that no harm

would come to their school or players, and that the information received would be held in strict confidentiality. The coaches were also informed in the letter that their team's participation would be of significant importance and that the information gained from the study could benefit their players, future players, and the growth of tennis. The end of the letter informed each coach that only three schools supporting a men's team and three schools supporting a women's team would be chosen for this investigation. Two boxes at the end of the letter marked "Yes, my team would like to participate" or "No, my team would not like to participate" allowed the coaches to respond to whether or not they wanted their team to participate in this investigation. Lastly, instructions informed the coaches to return the letter in the self addressed stamped return envelope by the requested return date.

Following the return reply of each coach, a random drawing was made to determine which teams were chosen for the investigation. The first three male teams and the first three female teams picked from the blind drawing were selected. A selection letter (see Appendix B) was sent to the coaches of these six teams informing them that they were chosen for the investigation and that they would be contacted by phone on the date specified.

The initial phone contact served as a greeting and to answer any questions the coach may have had. Also, during the discussion a date was decided upon for the investigator to administer the CSAI-2 to the respective team. The match date decided upon to administer the survey involved a match that the players and coach felt had significance to them. Following the phone contact an envelope containing seven preparatory information letters (see Appendix C) was sent to the coach and players.

The preparatory information letter (see Appendix C) stated the purpose of the study, informed the players that their responses would be held in strict confidentiality, that each player's participation would be greatly appreciated, and that their participation would contribute to the knowledge base about competitive tennis performance. Also, the letter informed the players of the date of the investigation.

Administering the CSAI-2

On the day the CSAI-2 was administered an informed consent form (see Appendix D) was provided for the players and coaches to read. The informed consent form stated that any information obtained from this study would be held in strict confidentiality, and that no obvious risk or harm would happen to them by participating in this study. Also, the players were informed that participating in the survey was purely voluntary and that they could stop at any time.

After reading the informed consent form, the CSAI-2 (see Appendix E) was administered to the players 20 to 30 minutes prior to their competition. Past research has shown this is an acceptable time to administer the CSAI-2 (e.g., Jones & Cale,1989b). To obtain accurate results the instructions for completing CSAI-2 (see Appendix E) were given on the instrument. The instructions indicate to circle the appropriate number to the right of each statement which represented the players' immediate response and feelings. The responses to each item were on a Likert scale ranging from 1 ("not at all") to 4 ("very much so").

Upon completion of the CSAI-2 subjects were assigned to either a high or low state anxious group. Subjects scoring above the norm for collegiate athletes on both the cognitive (CSAI-cog) and somatic (CSAI-som) anxiety

subscale were assigned to the high anxious group. Subjects scoring below the norm on both CSAI-cog and CSAI-som were assigned to the low anxious group.

Interview Procedures

After the surveys were completed, the interviews were conducted at the earliest date possible with the participating tennis players. The weather permitted the interviews to take place seated outside, away from any distractions.

The interview began by greeting the respondent with an introductory statement to establish rapport. The introductory statement informed the respondent about the background of the interviewer, how the interview was to be conducted, the type of questions to be asked, the uses of the data, the purpose of recording responses, and that the data reported would be confidential. The second phase of the interview oriented the participants to respond to open-ended questions in regards to their feelings and thoughts about the tennis match when the CSAI-2 was given. The questions were arranged into six categories of stage fright. Elaboration probes were used to gain a deeper understanding of certain responses. An example of an elaboration probe was, "Can you elaborate and give me more detail on what you meant by that?" If the interviewer did not fully understand the respondent's answer, a clarification probe (e.g., "I not sure I understand exactly what you mean, could you please go over that again") was used to clarify the source. Thus, each category relating to stage fright began with an open-ended question and became more narrow in focus as the interviewer went through the checklist of probes. The interviews were tape recorded, and a transcript was kept of each

interview. Upon completion of the interviews the analysis of data was conducted.

Data Analysis

Demographic Data: Means and ranges were used to describe the female, male and total samples. Descriptions were provided for each samples' age and years playing experience.

Competitive State Anxiety Inventory - 2 (CSAI-2): Analysis of the CSAI-2 was performed by using means, ranges and percentages for female, male and total samples. The means for each sample were calculated for CSAI-cog and CSAI-som. The ranges were also calculated for both subscales. Percentages for the samples above and below the norm on both CSAI-cog and CSAI-som were calculated.

Interview Data: A cross-interview analysis (Patton, 1990) was conducted for each question in the interview. The cross-interview analysis grouped together answers from the different participants to the common questions. Such an analysis utilized the raw data obtained in the interview and organized it into the predetermined categories. This type of analysis was appropriate for the standardized open-ended interview (Patton, 1990). Quotes or comments relating to sources of pre-performance anxiety were identified as one of the six basic units of analysis. The units or sources of stress were then positioned into one of the six major categories. For example, when the respondent described the match as "serious," then this response fell into the "importance" category. Percentages of the players' comments were then calculated. These

percentages were employed to describe and analyze the interview data. The percentages of the interview data were further used in conjunction with the CSAI-2 data to determine if the responses by the high state anxious tennis players and the low state anxious tennis players were similar or dissimilar.

CHAPTER 4

Results

The purpose of this study was to determine if the elements of stage fright affect the pre-performance anxiety of tennis players. The CSAI-2 was used to determine the level of cognitive and somatic anxiety each tennis player experienced prior to an intercollegiate tennis match. Post game interviews with each player were then conducted to determine which elements, if any, of stage fright were perceived as threatening. Comparisons of the interview statements were then made between the players who had combined high cognitive (CSAI-cog) and somatic (CSAI-som) anxiety scores to that of the tennis players who had combined low CSAI-cog and CSAI-som scores.

This chapter begins with a description of the findings from the pilot study followed by descriptive statistics for the demographic and CSAI-2 data. A narrative evaluation of the post game interviews and comparison of the high and low state anxious groups will follow.

Pilot Study

The principal purpose of the pilot study was to analyze the interview data and make appropriate semantic adjustments to the interview schedule before conducting the primary study. Interviews were conducted with six male community college tennis players in the exact manner as the primary study was conducted. The pilot study determined that the instructions given to the players were adequate. No changes were made to the instructions of the interview schedule since all the subjects clearly understood them. However, adjustments were made to the items and probes in the interview schedule.

The question in Item one, "What were your thoughts the night before the match?", was found to lead the responses of the players to a certain time frame. Also, the question referred to the players' thoughts and did not allow the players to consider their feelings or emotions prior to the match. Thus, the original item was changed to "When did your thoughts or feelings about the match begin?". The probes for item one were further changed to, "What was your most intense thought or feeling?", "Did this thought or feeling intensify as the start of the match drew closer?", and "When was this thought or feeling most intense?".

Item two was designed to determine if the players were apprehensive about "choking" in their matches. No changes were made to the main question. However, the probe "What was your biggest fear?" was too broad and did not reveal the players' feelings about the possibility of choking in the match. However, the probe did reveal some interesting responses and was preserved in the interview schedule in conjunction with two new probes, "Did you have any thoughts that you might choke during the match?" followed by "How did that make you feel?". These two probes were direct in determining the players' thoughts and feelings about choking and whether those thoughts provoked any anxiety prior to their match.

In question three the players were asked to rate the importance of tennis in their life on a scale from 1 to 10. However, there was no standard against which the players could rate themselves leading to inconsistency in their responses. A definition was added to describe what the high end of the scale would represent if a person rated the importance of tennis in their life as a ten. The definition stated that, "A person who makes tennis their livelihood, who spends 4 to 6 hours a day on the tennis court either playing or teaching, competes in tournaments regularly, and is spending a large portion of their free time

conditioning, training and thinking about tennis even when their not at the tennis court." The players were then asked to rate the importance of tennis in their life on the scale from 1 to 10 according to the given definition of the scale. Furthermore, the probe "How do you feel when you think you might have an inadequate performance?", was changed because the question was too open ended. The probe did not focus upon the specific match in question. The change was made to, "Did you think or feel you might have a poor performance prior to your match you just played?".

The order in which the questions in item four were asked were changed because the item assumed the players knew there were spectators watching their match. The question "Did you see or perceive any spectators watching your match?" preceded the original question, to determine if the players actually perceived the spectators at their matches. In addition the probe, "How did these specific spectators affect you?" was added.

No changes were made to item five. The main questions read "When do you like an audience to watch you play?" and the alternate question "When don't you like an audience to watch you play?" were not changed. These questions were found to be sufficient enough to prompt the players' responses without bias in regard to the control of the match.

The initial question for item six "What circumstances make tennis difficult?" was found to be too broad. Many of the players were confused and required further direction. A preceding question was inserted to provide direction and focus. The inserted question, "Did you perceive that your match would be a difficult match?" allowed the player to discover his or her feelings about the difficulty of the match. This question was then followed by the prompt "What circumstances or conditions made that match difficult?". The order in which

these questions were asked provided a more focused answer from the players in regard to the difficulty of their match in question.

Lastly, the pilot study provided the interviewer with practice at taking notes, topic control, and the use of the tape recorder. The experience from the pilot study also gave the interviewer a more consistent approach in administering the interview, thus increasing the reliability of the primary study.

Primary Study

Subjects

The mean and range of the age and years experience playing tennis for females, males, and the total sample are provided in Table 1.

Table 1

Ages and Years Experience of Subjects (in years)

Gender	N	Mean Age	Range (age)	Mean Experience	Range (experience)
Female	16	22.31	18 - 39	6.25	1 -13
Males	15	20.93	19 - 36	9.53	4 - 24
Total Sample	31	21.65	18 - 39	7.84	1 - 24

Analysis of CSAI-2

This section first provides the CSAI-2 normative data for collegiate athletes (Martens et al., 1990) followed by the mean scores of the CSAI-2 for the females and males of this study. The mean scores for both the cognitive and somatic subscales of the CSAI-2 are also provided. Lastly, the CSAI-2 norms provided by Martens et al. (1990) for male and female collegiate athletes were employed to arrange subjects into the high and low state anxious groups. A median split was used to determine the high and low anxious groups. Players scoring above the fiftieth percentile of the norm on both CSAI-cog and CSAI-som were placed into the high anxious group, and players scoring below the fiftieth percentile on both CSAI-cog and CSAI-som were placed into the low anxious group.

The data used in the computation of the CSAI-2 norms were obtained from competitive anxiety research investigating such sports as golf, gymnastics, shooting, track and field, volleyball and wrestling (Martens et al., 1990). The range of possible scores on the CSAI-2 is 9 to 36 for both cognitive or somatic anxiety subscales. The norms for the female college athlete (n = 220) are 18.40 for the cognitive anxiety subscale and 16.85 for the somatic anxiety subscale (Martens et al., 1990). The norms for the male college athlete (n = 158) are 17.68 for the cognitive anxiety subscale and 17.68 for the somatic anxiety subscale (Martens et al., 1990). A summation of the norms is presented in Table 2. The female, male and total sample mean scores for both the cognitive and somatic anxiety subscales are also presented in Table 2.

Table 2

CSAI-2 Norms and Present Research Means
(Research means underlined)

Subscale	Females	Female Norms	Males	Male Norms	Total Sample	Total Norms
CSAI-cog	17.63	18.40	20.13	17.68	18.84	18.04
CSAI-som	14.75	16.85	17.13	17.68	15.90	17.27

Inspection of the data revealed that males had a wider range of scores on both CSAI-cog and CSAI-som than females. The CSAI-2 scores for males ranged from 12 to 30 on CSAI-cog and 9 to 27 on CSAI-som while female scores ranged from 12 to 26 on CSAI-cog and 11 to 20 on CSAI-som.

Also, nine (29%) subjects had combined CSAI-cog and CSAI-som scores above the norm and 12 (39%) subjects had combined CSAI-cog and CSAI-som scores below the norm. Results from the CSAI-2 scores revealed that six females scored above the norm on the CSAI-cog but not above the norm on CSAI-som. Also, six females scored above the norm on the CSAI-som but not on CSAI-cog. Only three females had combined CSAI-cog and CSAI-som scores above the norm.

Results from the CSAI-2 scores revealed that nine males scored above the norm on the CSAI-cog but not on CSAI-som. Also, six males scored above the norm on CSAI-som but not on CSAI-cog. All the males that scored above the norm on the CSAI-som also scored above the norm on CSAI-cog. In other words, 40% (n = 6) of the males had combined scores above the norm on both

CSAI-cog and CSAI-som. The results of the CSAI-2 and the CSAI-2 norms for the females, males, and total sample are provided in Table 3.

Table 3

Population Scoring Above and Below 50th Percentile on CSAI-2 Norm Subscales

Subscales	Females		Males		Total	
	n	%	n	%	n	%
CSAI-cog						
Above mean	6	38%	9	60%	15	48%
Below mean	10	62%	6	40%	16	52%
CSAI-som						
Above mean	6	38%	6	40%	12	39%
Below mean	10	62%	9	60%	19	61%
CSAI-cog & som						
Above mean	3	19%	6	40%	9	29%
Below mean	7	44%	5	33%	12	39%

Analysis of Interview Data

This section describes how the elements of stage fright affected the established high and low state anxious groups prior to their intercollegiate tennis match. The interview data will be analyzed according to each element of stage fright. Each section compares and contrasts the high and low state anxious groups' perceptions of how each of the six elements of stage fright affected their state anxiety prior to their intercollegiate match.

Analysis of the Importance of the Match

According to Stebbins (1981), importance comes from taking the activity seriously, and that an inadequate performance would be embarrassing and out of step with one's image as a participant in that pursuit. When the players were questioned on how important the match was to them, 84% of the players (n = 26) commented that the match was "important" or they were "serious" about their match. Representative comments by both female and male players were:

"...This match was very important to me. I really wanted to win."

"...All my matches are important."

"...Yes, I was very serious. Playing number six is hard. You can be replaced at any time. You have more at risk."

The first null hypothesis stated that the high and low pre-performance state anxious groups would not differ in their perceptions of the individual effects of each of the six elements of stage fright. The findings indicate that this hypothesis was supported for the effects of match importance by both the female and male players. Comments by the high and low anxious groups were not different in regards to the importance of the match. The results indicated that 67% (n = 2) of the high state anxious females and 71% (n = 5) of the low state anxious females commented that they were "serious" about their match (see Table 5). Also, 80% (n = 4) of the low state anxious male players placed as much importance on their matches as 100% (n = 6) high state anxious players (see Table 5).

The second null hypothesis stated that the high state anxious group will not perceive any of the six elements of stage fright as threatening prior to an intercollegiate tennis match. The findings in this study were not supportive of

the second null hypothesis with regard to the effect of the importance of the match. The results indicate that eight (89%) high state anxious players did perceive the importance of their matches as threatening. High state anxious players commented that the importance of the match created "negative," "uncertain," and "nervous" sensations. Female and male players were similar in their comments.

When the players were asked to rate the importance of tennis in their lives on a scale from 1 to 10, the scores between the high and low anxious females were very similar. The mean score for the importance of tennis in the high state anxious community college female tennis players' life was 6 and the mean for the low state anxious female players scored a 5.6. However, the means for the high and low state anxious male players were different from each other. The high anxious male players scored the highest on the importance of tennis in their lives. The mean score for the high anxious male tennis players was 7.1. In contrast, the low anxious male players scored the lowest on the importance of tennis in their lives. The mean score for the low anxious male players was 5.

Analysis of the Imminence of the Match

Imminence is another element in the development of stage fright. Imminence is defined as an impending activity that is likely to happen without delay (Webster's New World Dictionary, 1970). Stebbins (1981) believed that the critical activity must be close at hand to dominate an individual's thoughts. He indicated that the individual has not yet started the activity, nor is the activity so distant that other thoughts occupy the person's mind. However, Stebbins does not indicate a specific time frame when these thoughts begin or when they are the most intense. However, research has shown cognitive anxiety to

increase as early as 2 days prior to the event (Jones & Cale, 1989b). Somatic anxiety has been shown to increase 2 hours before the event and continue to rise until the last minute before the event where it has been recorded to be the highest (Breznitz, 1967). The evidence from this research indicates that there is a window of time where stage fright or pre-performance anxiety begins and then rises to its most intense moment prior to the event.

The reports by the players in this study indicated that the earliest thought of the match was the night before the upcoming match. Fifty two (n =16) percent of the sample indicated the night before was when they began to think about the upcoming match. An additional 45% (n = 14) of the sample indicated that on the morning of the match they also had thoughts of the upcoming match. Both female and male players reported thinking about tactics, strategy, wanting to play to their own potential, and expressed concern on how well they would play. Thoughts centered on the self and on parts of the game within their control, especially how they would play, and not so much on how their opponent's would play. Typical comments by both the female and male players on how the imminence of the match affected their thoughts and feelings were:

> "...As the match gets closer you begin to focus on how you'll play."
>
> "...I started thinking about the match the night before. I wanted to win. I had an opportunity to play a good player."
>
> "...Yes, the match was on my mind. It was important for my seeding in the conference tournament."

The first null hypothesis stated that the high and low pre-performance state anxious groups would not differ in their perceptions of the individual effects of each of the six elements of stage fright. This hypothesis was not supported by the female or male groups for the stage fright element of

imminence. The findings indicate that seven of nine (78%) high state anxious players described themselves as becoming more nervous as the match drew closer and perceived their nervousness as negative. In contrast, 9 of 12 (75%) of the low state anxious players did not perceive their nervousness as negative but as positive.

The second null hypothesis stated that the high state anxious group would not perceive any of the six elements of stage fright as threatening prior to an intercollegiate tennis match. The comments of "negative" feelings reported by 78% of the high state anxious players do not support the second null hypothesis. For further CSAI-2 gender results see Table 5.

Many high state anxious players commented the most nervous moment was when they were walking to their courts in preparation to begin their match. This is typically 1 to 2 minutes prior to starting the match. Comments made by female and male players when asked, "When was your most intense feeling or thought", were:

"...Just before hitting the first ball in warm-up, I felt the most nervous."

"...Just before taking the court, I felt the most nervous."

"...During the introductions."

Analysis of the Effect of the Evaluative Audience

An evaluative audience is an audience considered by the person performing the activity as able to evaluate his or her efforts (Stebbins, 1981). In other words, the spectators at the event must be regarded by the players as sophisticated enough to spot flaws in the performance.

One of the delimitations of this study was that each tennis player must have competed before and perceive that an audience was present at the intercollegiate match. After questioning the total sample, 100% (n = 31) of the players indicated that they were aware of the presence of spectators at their matches.

To determine if the evaluative audience affected the anxiety level of the players in this study, the question was asked, "Do the spectators affect you positively or negatively?". This question was followed by "How do the spectators make you feel?". Eighteen of 31 players in the sample indicated that spectators negatively affected them. Common responses to how the spectators affected the players were:

"...I get very nervous."

"...I don't like them to watch. I get embarrassed about my mistakes."

"...You feel nervous. You don't want to disappoint them."

A follow up probe revealed the type of spectators that most anxiously affected the players. The responses reported most often were:

"...parents."

"...my coach."

"...boyfriend/girlfriend."

The first hypothesis stated that the high and low pre-performance state anxious tennis players would not differ in their perceptions of the individual effects of each of the six elements of stage fright. The CSAI-2 results indicated

the first null hypothesis was not supported for either the female or male samples. The high and low pre-performance state anxious tennis players were affected differently by the evaluative audience. The results indicated that eight of nine (89%) high state anxious players gave spectators a negative overall rating. In other words, these players indicate that they grew more nervous with the presence of spectators and perceived this nervousness as a distraction in preparation for their match. In contrast, 5 of 12 (42%) low state anxious players rated spectators as a negative overall influence.

The second null hypothesis stated that the high state anxious group would not perceive any of the six elements of stage fright as threatening prior to an intercollegiate tennis match. The findings do not support the second null hypothesis. The reports provided above indicate that a large percentage (89%) of high state anxious players were negatively affected by the audience. Audience effects by gender indicated that 100% (n = 3) of the females with combined high CSAI-cog and CSAI-som scores were found to perceive the audience as threatening, while five of six (83%) males with combined high CSAI-cog and CSAI-som scores had the same perception (see Table 5).

When the high state anxious female and male players were asked why the spectators made them nervous the most common response was "to get a good evaluation," and "to please" or "not to let down" the particular spectators. However, these comments were not equally distributed between the female and male samples. The high anxious female group was concerned about the evaluation they would receive by the spectators because of the knowledge they possess about tennis. These concerns about being evaluated by a knowledgeable audience are similar to Stebbins' (1981) findings. In contrast, only one high state anxious male player was concerned with his performance

evaluation by the spectators. However, the remainder (n =4) of the high state anxious male sample was concerned about "pleasing" or "not letting down" the fans which to some degree does contain an evaluative component.

Analysis of the Control Over the Match

To determine whether the perception of control has any effect on stage fright the question was asked to each player, "When do you want an audience present?". Stebbins (1981) indicated that when an individual perceives the audience believes the critical activity is within his or her control, this perception may contribute to stage fright (Stebbins, 1981). The players responses to the question were basically consistent. Of the total sample, 84% (n = 26) commented that the time they prefer to have an audience present was when they were "playing well" and "in control" of their own play. Representative comments were:

"...I like an audience to watch when I'm in control of my own play."

"...I like an audience to watch when I'm playing well, even if I'm losing."

"...I like an audience present when I am in control of my play and I am trying hard."

"...I like an audience to watch when I am confident in my play."

Further comments indicated that the players were concerned about the audiences perception of the control they had over the match. This concern affected the level of anxiety for the players. General comments by both the high anxious female and male groups were:

"...An audience makes me self-conscious. They (audience) are critiquing your (my) performance."

"...Yeah, I think, they (audience) think I am not good enough for my opponent."

"...If I miss the audience will think I am no good."

The first null hypothesis stated that the high and low pre-performance state anxious groups will not differ in their perceptions of the individual effects of each of the six elements of stage fright. This hypothesis was not supported by the female group with respect to the control of the match; however, the findings for the male players did support this hypothesis. The findings indicate that six of seven (86%) low state anxious females reported that the audiences' expectations of their play was positive, while two of three (67%) high state anxious females indicated that the audiences expectations of their play was negative whether they were in control of the match or not (see Table 5).

However, the first null hypothesis was favored for the male sample. The results show that five of six (83%) high anxious male players and three of five (60%) low anxious male players perceived the audiences' expectations of their play to negatively effect their performance. The narrow range in the percentages between the high and low anxious male players negatively affected by the audiences expectations does not discriminate either group from each other.

The second null hypothesis stated that the high state anxious group would not perceive any of the six elements of stage fright as threatening prior to an intercollegiate tennis match. The reports provided by the female and male tennis players indicated that they were concerned about the control of the match

and that the loss of control of the match was perceived as threatening. Thus, the second null hypothesis was not favored.

Analysis of the Match Difficulty

A sufficiently difficult task conducted before a knowledgeable audience can be potentially unmanageable, and is a contributing factor to stage fright (Stebbins, 1981). To determine the difficulty of the match in this study the players were simply asked "Did you perceive this match as difficult today?". Twenty one of 31 players (68%) perceived their match would be difficult prior to the start.

Explanations given by 18 players to why their match was difficult, attributed match difficulty to their perception of the opponents superior ability. Representative comments by the total sample were:

"...A tough opponent makes tennis difficult."
"...Your opponents reputation as a good player is difficult."
"...Knowing your opponent is a good player is hard (difficult)."

Although an opponents superior ability was indicated to be the most difficult situation to overcome for the majority of tennis players, five other responses were consistently reported. They were:

"performance swings"
"mental concentration"
"emotions"

"loss of control of the match"

"weaker opponent"

The first null hypothesis stated that the high and low pre-performance state anxious tennis players would not differ in their perceptions of the individual effects of each of the six elements of stage fright. Analysis of the CSAI-2 revealed that this null hypothesis was supported by the male sample but not by the female sample with respect to the element of match difficulty. Match difficulty was perceived to be concern by 100% (n = 6) high state anxious male tennis players and 100% (n = 5) of the low state anxious male tennis players (see Table 5). This result does not differentiate between the high and low anxious groups, but does indicate that the male tennis players are concerned about the difficulty of the match. The high pre-performance state anxious female players indicated opposite affects to that of the low pre-performance state anxious female players. The findings indicated that 67% (n = 2) of the high state anxious females did not perceive their match to be difficult, whereas 71% (n = 5) of the low state anxious females indicated their match would be difficult (see Table 5). This finding is contradictory to what would be expected and does not support Stebbins (1981).

The second null hypothesis stated that the high state anxious group would not perceive any of the six elements of stage fright as threatening prior to an intercollegiate tennis match. The reports provided by the high state anxious male players indicate that the the second null hypothesis was not favored. However, the findings indicate that the high state anxious female group did not perceive match difficulty as threatening. Consequently, the second null hypothesis was favored by the high state anxious females.

Analysis of the Concept of "Freezing"

Stebbins (1981) combines the audience, control, and the difficulty of the activity with the concept of freezing. The individual may freeze while executing the activity when she or he believes the audience expects the individual to control the difficult activity. In other words, the individual fears she or he may lose confidence, becoming unable to conduct the activity as expected by the audience (Stebbins, 1981).

When the players were asked what their most intense fear was prior to the match, 77% (n = 24) indicated that losing control the match or situation was their biggest fear. The representative comments reported by the women's and men's sample were:

"...I was afraid I would not play consistently."

"...You fear you might not play the big points well, you might lose."

"...Equipment failure ...it can cost you the match."

"...I feared I may lose control of my emotions."

"...Choking."

These statements were all reported prior to the match, and all relate to the fear of not being in control at a certain moment during the match. For example, the player who feared equipment failure has no control over when his strings may break, and fears a change in rackets may cause her/him to play worse. This in a sense is a form of freezing. Players (n = 16) indicated directly that "choking" or not playing the "big points" well during the match was a concern. The term "choking" in tennis is equivalent to Stebbins' term of "freezing." Both

demonstrate similar characteristics. Stebbins (1981) depicts the nature of freezing by quoting one baseball player's account of "freezing":

> "Pregame nervousness is usually pretty good. You get out there and you start warming up and your legs feel like rubber and you old arms just don't want to throw right, you know. You get ready to go up to the plate and bat and you're swinging the bat and it feels like you've got a hunk of lead in your hands instead of a bat" (p. 159).

Similar, comments were made by the high state anxious players in this study. Physical symptoms such as, "butterflies in the stomach," "shakiness," "stiffness of the joints," "racing heart," and "tense muscles" were common among these players prior to the start of their match.

The first null hypothesis stated that the high and low pre-performance state anxious tennis players would not differ in their perceptions of the individual effects of each of the six elements of stage fright. This hypothesis with respect to the element of "freezing" was not favored for either the female or male groups. Analysis of the CSAI-2 indicated that seven of nine (78%) high state anxious players indicated that "choking" was a major concern they had prior to their match. In contrast, only three low state anxious female players and zero (n = 0) low state anxious male players indicated that they had any thoughts or concerns about choking prior to their match.

The second null hypothesis stated that the high state anxious group would not perceive any of the six elements of stage fright as threatening prior to an intercollegiate tennis match. This null hypothesis was not supported by either the female or male groups. Both the high state anxious female and male samples reported to perceive the concept of "freezing" as threatening.

Final Player Comments

This last section represents any final comments the players wanted to report or emphasize that they felt were anxiety provoking. The players were allowed to freely state what ever they felt made them anxious. No guidelines were provided by the interviewer. A variety of conditions were commented on. Some players reported that one of the six elements of stage fright was the most anxiety provoking for them while others reported novel conditions. A list was created to illustrate the conditions and feelings the players considered as anxiety provoking (see Table 4). The representative comments are presented with the frequency at which they were stated.

Table 4

Conditions that are Anxiety Provoking for the Community College Tennis Player

Final comments: Anxiety Conditions	Number of Players Reporting Conditions
"...difficult opponents (ability)"	8
"...not being in control of match"	4
"...importance of the match"	4
"...being hungry before a match"	2
"...lesser opponent, more to lose"	2
"...wanting to win or play well"	1
"...officials"	1
"...not wanting to lose"	1
"...friends"	1
"...having a bad day"	1
"...past experience of losing to an opponent"	1
"...coach who uses 'don't' statements"	1
"...thinking I may play inconsistently"	1
"...opposing audience"	1
"...unknown player"	1

Summation of the CSAI-2 Results with the Interview Data

The third null hypothesis stated that the the high or low pre-performance state anxious groups will not differ in the type or amount of the six elements of stage fright that affect them. This null hypothesis was not favored. The findings indicated that six of nine (67%) high state anxious players were affected by the

cumulative affects of all six elements of stage fright. In comparison, only four of 12 (33%) low state anxious players were affected by all six elements of stage fright. These percentages indicate that players with high pre-performance state anxiety are affected by all six elements of stage fright and players that are not affected by all six elements remain low anxious players.

The results of the CSAI-2 and the interview data are brought together in table form (see Table 5). The table is divided into the combined high and low state anxious players. Percentages are used to illustrate how each of these groups were affected by the six elements of stage fright proposed by Stebbins (1981).

Table 5

The Individual Effects of the Preconditions to Stage Fright for High and Low State Anxious Tennis Players

	COMBINED HIGH CSAI-COG/CSAI-SOM				COMBINED LOW CSAI-COG/CSAI-SOM			
	Females		Males		Females		Males	
	% Yes	n	% Yes	n	% Yes	n	% Yes	n
Was the match important?	67	2	100	6	71	5	80	4
Did the thoughts of the match increase in intensity?	67	2	100	6	100	7	80	4
Were these thoughts most intense 5 minutes before the start?	67	2	100	6	71	5	60	3
Did the players know an evaluative audience was present?	100	3	100	6	100	7	100	5
Was the evaluative audience perceived as threatening?	100	3	83	5	57	4	60	3
Was there concern that the audience believed the match was within the players' control?	67	2	83	5	86	6	60	3
Was the match considered difficult?	33	1	100	6	7 1	5	100	5
Did the players think about freezing?	67	2	83	5	43	3	0	0

CHAPTER 5

Discussion, Conclusions, and Recommendations

Discussion

This study was the first to investigate the effects of the six elements of stage fright (Stebbins, 1981) on the pre-performance state anxiety of community college tennis players. This chapter will discuss the effects of each of the six factors of stage fright, as well as how the same six factors cumulatively affect pre-performance state anxiety. Conclusions and recommendations will follow.

The Individual Effects of the Elements of Stage Fright

A key factor in determining if the importance af the match was a contributing element to pre-performance state anxiety was how the players perceived the value of their matches. Prior research has shown that the importance of the sport situation is directly related to both the meaning of the event (Iso-Ahola & Hatfield, 1986) and the value of attaining a favorable outcome (Martens et al., 1990). Research has also shown that anxiety levels elevate in an athlete when a sport situation is important (Dowthwaite & Armstrong, 1984; Gruber & Beauchamp, 1979). Gruber and Beauchamp (1979) have found that athletes are significantly more anxious before important games when compared to the less important games.

Comparisons of the interview data and the CSAI-2 found that eight of nine high anxious players and 9 of 12 low anxious players indicated their match was important. These findings indicate that both high and low state anxious players perceived their matches as important. Little distinction can be made between the high and low state anxious groups with respect to the importance of the

match; however, evidence was shown that match importance was a contributing factor to pre-performance anxiety.

The results of this study indicate the high anxious players that testified their matches were important to them; also reported they were concerned with the other five elements of stage fright. In comparison, only three of nine low anxious players who indicated their match was important were concerned with the other five elements. Consequently, the evidence shows that the importance of the event, when combined with the other five elements of stage fright can raise the level of state anxiety in a performer.

In fact, research has shown that over stimulation can raise the stress level of the performer past an optimal arousal into an anxious state (Martens, 1971; Yerkes & Dodson, 1908). Consequently, the concern the high state anxious players had over the importance of the match in combination with the effects of the other five elements of stage fright may have been threatening enough to raise their anxiety. In comparison, the solitary factor of the importance of the match may not have been threatening enough to excite an anxious response from the low state anxious players since they were not concerned with the entire six elements of stage fright.

Time has been found to be a contributing factor to state anxiety. Past research has shown that physiological stress (Breznitz, 1967) and psychological stress (Gill, 1980) increase as the starting time of the event approaches. The findings in this study show similar results. Players' concern about the match intensified from the night before the match to just before the start of their match. The results of this study indicate that the most intense moments of stress were approximately 5 to 1 minute prior to the start of the

match. Breznitz (1967) has also shown that approximately 1 minute prior to the event was the most stressful time for the participant.

Both the high and low pre-performance state anxiety groups indicated that the frequency of thoughts about tactics, strategies, and abilities, steadily increased from the morning of the match until the start of the match. This finding supports Stebbins' (1981) claim that as the start of the activity approaches the thoughts of the performers are dominated by the activity.

However, in determining whether imminence was a contributing factor to pre-performance anxiety in this study, a distinction must be made between the high and low state anxious players. Both the high and low state anxious groups reported that their frequency of thoughts about the match increased as the start of the match approached. However, not all the players experienced the same anxiety level. One explanation for the different anxiety levels is that the low state anxious players perceived their nervousness as positive as the match approached, whereas the high state anxious players described their nervousness as negative. Consequently, the low anxious players may have stayed more relaxed and kept their anxiety levels low due to their positive perceptions of their nervousness. In fact, research has found that a contributing factor to the intensity of a performer's anxiety is how the performer perceives and copes with that anxiety (Buceta, 1985; Hardy & Crace, 1990). Furthermore, research has indicated that it is a player's state of negative feelings prior to performance that causes pre-performance anxiety (Hardy & Crace, 1990).

Differences in anxiety levels could also be related to the fact that not all the players were concerned with the entire six elements of stage fright. The findings indicate that 67% (n = 8) low anxious players reported they were not concerned with the entire six elements of stage fright, where as 89% (n = 8)

high state anxious players were concerned with all six elements of stage fright. The low state anxious players did not experience all six elements of stage fright, as did the high state anxious players, and may not have been threatened enough to raise their arousal level past their anxiety threshold (Martens, 1971; Yerkes & Dodson, 1908). Consequently, Stebbins' (1981) claim that stage fright will not occur if the performer is not concerned about all six elements is supported. Stebbins' (1981) claim that the element of imminence contributes to stage fright was also found to contribute to pre-performance state anxiety in tennis.

The findings of this study indicate that an evaluative audience had an effect on the players' anxiety. The players reported the most threatening spectators were coaches, boyfriends and girlfriends, and parents. The players were asked why these spectators had more of an effect. The typical response was that these spectators had a special interest in or competent knowledge about tennis. This finding is consistent with past research (Costa et al., 1984; Gould & Weinberg, 1985; Sasfy & Okun, 1974) and also supports Stebbins' (1981) claim that the audience must be perceived by the performer to be able to evaluate her or his performance to be a contributing factor of stage fright.

The difference in the percentage between the high and low state anxious players affected by the audience was moderate. The findings indicated that 78% (n= 7) of the high state anxious players and 42% (n = 5) of the low state anxious players reported they had concerns about the audience. The distribution of percentages between the high and low state anxious players indicates that an evaluative audience may have more of a discriminatory effect on the players' pre-performance anxiety than the previous factors of stage fright previously mentioned. Consequently, the players' concern about the evaluative

audience may be a stronger indicator of a player's pre-performance state anxiety level.

The findings show that a high percentage of high state anxious players and a low percentage of low state anxious players expressed concerns about the evaluative audience. The perceptual differences between the high and low state anxious groups distinguish these two groups. The findings indicated that the low state anxious players perceived their nervousness as a positive feeling when an audience was present. The low state anxious players felt their nervousness would help them play better. In comparison, the high state anxious players reported only negative affects of the audience and indicated that it was difficult to play well before spectators. Consequently, this evidence indicates that the element of evaluative audience is a strong factor in determining players' pre-performance anxiety levels in tennis.

The majority of the tennis players indicated that being in control of their own play was more important than the outcome of the match. Moreover, many of these players believed that the spectators expected them to be in control of their matches. Consequently, performing up to the audiences expectations creates stress (Havas, 1976).

The findings of this study indicate the majority of the high and low state anxious players were concerned about their control over the match and the spectators' expectations of their play. However, four of the players' anxieties remained low, even though they were concerned with the spectators' expectations of the their play. A possible explanation is that these players were not threatened beyond their anxiety thresholds (Martens, 1971; Yerkes & Dodson, 1908), since they were not concerned with all six elements of stage fright.

Also, research has found that persons with high perceptions of personal control are better able to cope with stressful events (Buceta, 1985) and can reduce their anxiety (Blankstein et al., 1989). It is possible these four low state anxious players maintained high personal control. The players may have been concerned with the spectators' expectations of their play to consider the situation as negative, but still maintained a belief that they would be able to control the match. This belief may have allowed these players to strategically cope with the negative situation to reduce their anxiety.

The findings of this study are consistent with past research (Buceta, 1985) in that the players more concerned about the control of the match and the spectators expectations of their play were the more anxious players. Support for Stebbins' (1981) claim that the element of control contributes to stage fright was found to contribute to pre-performance state anxiety in tennis players.

The players reported that performance swings, mental concentration, emotions, losing control of the match, and weaker opponents, all contribute to the difficulty of tennis. However, the majority of the players reported that facing a stronger opponent made tennis the most difficult. The findings indicate that 81% (n = 17) of the high and low state anxious players reported they perceived their matches would be difficult. Such a high percentage of players expecting their match would be difficult indicates that tennis is a difficult sport. In fact, Fiske and Maddi (1961) have labeled tennis as high in task difficulty.

Past research (Buckelew & Hannay, 1986) has that higher levels of state anxiety are demonstrated with tasks subjects rate as significantly more difficult. The findings of the present study paralleled these results. However, there were differences. The majority of high anxious females had little or no concern about

the difficulty of their matches. Also, a large percentage of the players who indicated their matches would be difficult reported low anxiety levels.

The low state anxious females may have reported that their matches would not be difficult because they wanted to believe their match was going to be easy to reduce their stress. In fact, research has shown that an effective coping strategy to reduce anxiety is to desensitize the difficulty of the task (Buceta, 1985). It is possible that these females denied that their match was difficult at an attempt to reduce their anxiety. Consequently, their reports indicated the matches would not be difficult even though the matches may have been difficult.

The low state anxious players that reported their match as difficult may have been able to effectively cope with the situation, consequently reducing their anxiety. Furthermore, these players were not concerned with all six elements of stage fright. They may not have been threatened enough to exceed their optimal anxiety level (Martens, 1971; Yerkes & Dodson, 1908). Lastly, these players may have higher trait anxiety (Spielberger, 1966). That is, these players were concerned about the difficulty of the match, but were not anxious because their anxiety threshold is higher than the high state anxious players. In other words, it takes a stronger threatening situation for the low state anxious players to get nervous than the high state anxious players in this study.

Although the majority of the high state anxious women did not indicated their match would be difficult, the high percentage of state anxious players negatively affected does provide evidence for the claim that the more difficult task is a stress factor and may increase the anxiety level of the subject (Stebbins, 1981). This finding also indicates that task difficulty is an important factor that affects pre-performance state anxiety in tennis.

The thought of "freezing" is a threatening situation because it obstructs players from performing effectively. Comments provided by the players indicate that the thought of "freezing" was often accompanied by muscle tension and the loss of motor coordination. Past research has shown these are common symptoms of "freezing" (Stebbins, 1981; Wertz, 1986).

The findings indicate that 89% (n = 8) of the high state anxious players reported that the fear of "freezing" during play was a concern prior to the start of the match. In fact, the majority of the high state anxious players reported that this was their biggest fear prior to the start of the match. In contrast, 58% (n = 7) of the low anxious players were not concerned about "freezing" prior to the start of their match. These findings indicate that the fear of "freezing" moderately divides the high and low state anxious players.

Research has shown that talking about "freezing" is a common cause of this stressor (Leith, 1988). A possible explanation to why many players were concerned about "freezing" is that their teammates or coaches warned about the possibilities of "freezing" in an attempt to alleviate the pressure of this stressor. However, in reality these cautionary procedures would have only created more stress. This is possibly why the other 42% (n = 5) low state anxious players were also concerned about freezing. Teammates may have been conversing about the possibilities of "freezing." However, the lone element of "freezing," without the threat of the other five elements, may not have been stressful enough to create an anxious response. In fact, research has shown that "freezing" is interrelated to task difficulty and control (Daniel, 1981). Thus, if the low state anxious players indicated little concern over the difficulty or control of their match, concern about "freezing" would be minimized. These low

state anxious players may have been concerned about "freezing" but not enough to cause anxiety.

The thoughts of "freezing" split the high and low anxious players. The majority of the high state anxious players were negatively affected by the fear of "freezing," while the majority of the low state anxious players showed little concern. This evidence supports the claim that "freezing" is a stress factor and may be a contributory cause to pre-performance anxiety.

In summary, the individual elements of importance, imminence, control, and task difficulty, had similar effects on both the high and low state anxious players. However, the effects of the evaluative audience and "freezing" split the high and low state anxious players. The majority of the high anxious players were negatively affected while the majority of the low anxious players showed little concern. Anxiety thresholds, players' perceptions, and trait anxiety are possible explanations to why these players experienced different anxiety levels. Support was shown that the elements that affect stage fright similarly affect pre-performance anxiety in sport.

The Cumulative Effects of the Elements of Stage Fright

Past research and the results from the present study indicate that many of the six elements that contribute to stage fright are closely related (Buceta, 1985; Daniel, 1981; Wertz, 1986). In fact, Stebbins (personal communication, May 13, 1992) commented that if all the elements were not considered threatening by an individual, then she or he would not be affected by stage fright. When Stebbins was asked what he thought the performer would experience if they were not threatened by all six elements he said, "I do not know, perhaps an alternate form of anxiousness but not stage fright." This "alternate form of anxiousness" is

a level of arousal that Stebbins does not acknowledge as stage fright. This level of arousal would not exceed the anxiety threshold (Martens, 1971; Yerkes & Dodson, 1908) for the performer.

An example of how the elements are interrelated can be shown from the discussion above. Players that lose control over their motor coordination because of the result of "freezing" would become inconsistent in their play. The players would no longer have control over their play and begin to lose control of the match. This process may be further compounded the by an evaluative audience. Players may begin to have concerns over whether the spectators are thinking about their inadequate play. In fact, the findings in this study indicated that many players attributed the difficulty of tennis to inconsistent play, which again is related to control. Thus, from this example the elements are interrelated and in order to have stage fright all the elements must be seen as threatening.

The findings from this study indicate that 67% (n = 6) of the high state anxious players reported to have concerns about all six elements of stage fright. In comparison, only 33% (n = 4) of low state anxious players indicated that they were affected by all six elements. This finding indicates the six elements that contribute to stage fright have also been found to be contributing factors to pre-performance state anxiety.

However, the fact that a small percentage of the low state anxious players were threatened by all six of the elements and did not score high on the CSAI-2 needs explanation. It is possible that these players did not answer the CSAI-2 with full honesty, for fear of admitting their nervousness and having their coaches discovering their answers. Furthermore, answering the CSAI-2 requires the individual to be in touch with their feelings at that single moment.

This is a difficult task for many individuals if they have never before attempted to feel or understand what their body is telling them, especially when they are distracted by the upcoming match. Lastly, the low state anxious players may not have become nervous because of their trait anxiety. Research has shown that an individual's trait anxiety is a strong predictor of state anxiety (Gerson & Deshaies, 1976; Martens & Gill, 1976). Thus, the match may not have posed a strong enough threat for these players to reach their anxiety threshold (Martens, 1971; Yerkes & Dodson, 1908) even though all the elements of stage fright affected them.

In summary, past research (Buceta, 1985; Daniel, 1981; Wertz, 1986), the results from the present study, and personal communications (Stebbins, May 13, 1992) indicate that many of the six elements that contribute to stage fright are closely related. The results indicated that the majority of the high state anxious players were affected by all six elements of stage fright. That the majority of high state anxious players were affected by all six elements supports the concept that pre-performance anxiety in sport is similar to stage fright.

The Effects the Elements of Stage Fright had on Gender

The findings indicated that the female and male players were not affected equally by the elements of stage fright. The element that had the greatest effect on the female players was the evaluative audience. In comparison, the element of "freezing" had the largest effect on the male players. The element that showed the most contrast between the male and female groups was task difficulty.

Female and male players showed concerns about the evaluative audience but for different reasons. The effect of the evaluative audience

separated the low and high state anxious female players. In fact, the effect of the evaluative audience produced the greatest split between the low and high state anxious female players.

The high state anxious female players were concerned about the evaluation they would receive by the spectators because of the knowledge the spectators possessed about tennis. Concerns about being evaluated by a knowledgeable audience are similar to past research (Stebbins,1981; Weinberg et al., 1982). Females in one study have been found to have low self-confidence and little expectations of success in an evaluation setting (Weinberg et al., 1982). They also do not feel that their outcome of the event is dependant on their effort or ability but rather some external factor such as luck (Deaux, 1976).

It is possible the female tennis players in this study had similar concerns about the evaluative audience. If the females did not believe they would have success and that the situation was not in their control, they would most likely not perform up to their standards. This situation is extremely threatening since it combines two stage fright elements, control and freezing, with the threat of the evaluative audience, thus, creating a split between the low and high state anxious females. This split shows that the effect of the evaluative audience is strongly related to anxiety in females.

In contrast, only one high state anxious male player was concerned with his performance evaluation by the spectators. The remainder (n =5) of the high state anxious male players were concerned about "pleasing" or "not letting down" the fans. This finding also parallels past research (Weinberg et al., 1982). Research has shown that males were found to attribute the outcome of the event to internal factors (Scanlan, 1977). Males were found to be more ego

involved (Scanlan, 1977). These findings would account for why the male players were concerned with pleasing the audience more than the females. The male players felt they were in control and responsible for the outcome of the match. If the majority of the male players were ego involved, this feeling would account for the high percentage of both low and high anxious males threatened by the evaluative audience.

The findings show that both the high state anxious female and male players indicated they were concerned about "freezing" in their matches. However, a large split was found between the low and high anxious male players, where as the low and high state anxious female players only moderately varied in their concerns about "freezing." The affects of "freezing" produced the largest split between the low and high state anxious males and shows that the affects of "freezing" is a strong factor in producing anxiety in male tennis players.

The results indicated that 83% of the high anxious males were concerned about freezing in their matches, while no player in the low anxious group was affected with this concern. Upon review of the interviews it was found that the one difference between the high and low anxious male players was that the low anxious players did not experience any symptoms of physical stress prior to there matches, where as the high anxious players did experience physical stress. Past research has shown that "freezing" is accompanied by muscle tension and the loss of motor coordination (Stebbins, 1981; Wertz, 1986). Since the low anxious players did not experience any symptoms of physical stress prior to there matches they may not have perceived "freezing" as a threat. Thus, no low anxious players reported being apprehensive about freezing.

Female and male players were found to react differently to the difficulty of their matches. The entire sample (n = 11) of low and high state anxious males reported they were concerned about the difficulty of their matches; however, the females recorded very different results. The findings indicated a reverse condition for the female players. A considerably larger percentage of the low state anxious female players were concerned about the difficulty of the match than the high state anxious female players.

A possible explanation for this result is that the matches the male players participated in were more difficult because of the importance of the matches. The male players' league standings were more at risk than were the female players' league standings in the matches surveyed. This was determined by the fact that of the three female teams that participated, one team was in first place and the other two teams were near last place, while all the male teams were close in ability and league standings.

The mismatch in ability of the female players may have created concerns for the better players. The stronger female players indicated opponents of lesser ability proved difficult to play, because the stronger players have more to lose. Consequently, many female players may have reported their match as difficult since the better players dislike to play weaker opponents and the weaker opponents must face much stronger and more difficult opponents. However, anxiety levels would remain low for both ability groups because the better players would remain confident that they would win even though playing weaker opponents is difficult and the weaker opponents would have nothing to lose or get nervous about since they were playing a much stronger opponents. Consequently, a large number of female players reported difficulty in their matches but few reported higher levels of anxiety.

For the male players the difficulty of the closer competition and the importance of the league standings would have created more of an anxious environment. In fact, research has found as difficulty (Buceta,1985) and importance (Dowthwaite & Armstrong,1984) increase, stress escalates. Consequently, the male players indicated concern about the upcoming competition. However, different anxiety levels were found among the male players. It is possible the low state anxious male players felt less stress for two reasons. First, the low state anxious players were not concerned about all six elements of stage fright which may have kept their anxiety level lower than the high state anxious players who were concerned about all six elements of stage fright. Stebbins (1981) did indicate that if performers were not concerned about all six elements of stage fright then stage fright would not occur. Secondly, the trait anxiety may have been different for the male players. Players with low trait anxiety would also have lower state anxiety. Research has shown that an individual's trait anxiety is a strong predictor of state anxiety (Gerson & Deshaies, 1976; Martens & Gill, 1976).

Consequently, the differences between the male and female players in regards to the difficulty of the match may have not been gender related. It is possible that the unequal levels of the competition influenced the players anxiety levels.

In summary, the findings indicated the female and male players showed concerns about the evaluative audience but for different reasons. The high state anxious female players were concerned about the evaluation they would receive by the spectators because of the knowledge the spectators possessed about tennis. In comparison, the majority of the of the high state anxious male players were concerned about "pleasing" or "not letting down" the fans. The

effects of the evaluative audience produced the largest split between the low and high state anxious females and show that the evaluative audience is a strong factor in producing anxiety in females. The majority of high state anxious female and male players were concerned with freezing, as expected. However, a greater split was found between the low and high anxious male players. This split between the low and high state anxious males indicates that "freezing" is a strong factor in producing anxiety in male tennis players. All the low and high state anxious males reported concerns about the difficulty of their matches. In comparison, a considerably larger percentage of the low state anxious female players were concerned about the difficulty of the match than the high state anxious female players. This result for the females is the reverse of what was expected. The importance of the match and a mismatch in abilities may possibly explain this finding.

General Comments Provided by the Players

When the players were asked to comment on what made them the most nervous prior to their tennis match, the top three responses encompassed over 50% of the total sample. The three most threatening situations the tennis players freely stated were the opponent's ability (difficulty), the control of the match, and the importance of the match (see Table 4). However, the free recall question was asked at the end of the interview after the players had been exposed to the questions about the six elements and these players may have been influenced by one of the elements or questions asked during the interview.

Conclusions and Recommendations

In conclusion, the majority of the players who perceived all six elements as threatening also experienced high levels of pre-competitive anxiety. Thus, the preconditions or causes are similar for both stage fright and pre-performance state anxiety. Differences in gender were minimal. The female player was most threatened by the evaluative audience. The male player prior to his match had more concern about "freezing" during his match. The importance of the present study is to help coaches and players identify these differences and to understand the causes of pre-performance state anxiety in the community college tennis player. Knowing what causes pre-performance state anxiety in the tennis player allows the coach and player to develop more effective coping strategies to better handle stressful situations. These coping strategies will enable the players to reduce their pre-performance state anxiety to a manageable level and enhance the athletes' competitive readiness (Turetskii, 1986).

Recommendations to develop a coping strategy for tennis players should be to become more aware of their optimum arousal level (Yerkes & Dodson, 1908). Each player should think of times when they felt ready to play and when they were anxious prior to a match. The thoughts should be specific as possible, focusing on how each player is affected by the six elements investigated in the present study. In general, all players should pay particular attention to how the opponent's ability, importance, and their own perceived control over the match affect their anxiety level. Also, the females and males should have separate areas of focus. Female players should specifically focus their attention on the effect the evaluative audience has on them and male players want to considered how "freezing" affects their anxiety level. Once

players recognize which conditions affect them the most, coping strategies can be implemented. Desensitization methods (Turetskii, 1986), visualization techniques (Suinn, 1984) or relaxation processes (Suinn, 1983) are all coping strategies that could be incorporated to reduce the areas of pre-performance state anxiety the player is experiencing.

The present research is a beginning and a deeper investigation into each element of pre-performance state anxiety should be conducted. It is recommended that a number of changes be made to strengthen further studies. It is recommended that the interview include questions regarding whether coaches or teammates discuss the possibilities of choking prior to a match. Research has shown this type of discussion could effect how a player feels about "freezing" in the upcoming match (Leith, 1988). Future studies should also control for the difficulty level of the competition. Teams close in ability levels or league standings may be affected differently from teams not close in ability or league standings. It is recommended that the trait anxiety of the performer be tested. Testing trait anxiety would determine whether the six elements of stage fright have similar effects on the state anxiety of low or high trait anxious individuals. Also, other sports should be investigated to determine if these six elements affect the athletes in those sports. Further studies could also investigate the possibilities that other elements than the six in this investigation could affect pre-performance state anxiety in sport. Examples of such factors are shown in Table 4 of this study.

More details about how and why these preconditions of pre-performance state anxiety affect athletes need to be investigated. Eventually, a more refined picture of the causes of pre-performance state anxiety could be developed for each specific sport. This detailed knowledge in turn will help sport

psychologists, coaches, and players continue to develop better coping strategies and ultimately help athletes consistently reach their optimum performance.

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APPENDICES

Appendix A

February 5, 1993

Dear Coach,

I am a graduate student in the Department of Human Performance at San Jose State University. In partial fulfillment of my master's degree, I am conducting a survey and interview of 36 male and female Junior College tennis players in Northern California.

My experiences as a tennis player and Junior College tennis coach, has lead me to believe that there are certain circumstances prior to a tennis match that can evoke emotions within a player. Past research has documented some of these circumstances, but more information is still needed to understand this phenomenon better.

In an effort to further these investigations, this study will attempt to determine what causes certain emotions in tennis players prior to an important tennis match. With your permission, six of your players will be needed to participate in the study. The players will be asked to fill out a questionnaire 20 to 30 minutes prior to an intercollegiate match. Approximately 2 to 3 days after the questionnaire is given a short 20 to 30 minute interview will be conducted of each player who participated in the survey.

No harm will come to the players or the team. All the information obtained by the survey and interview will be strictly confidential, and no one will see or be told their responses. Also, participation in the study is voluntary and your players will have the right to quit at any time. Your team's participation in this study is of significant importance and the information gained from this experiment will benefit your players, as well as future players and the growth of tennis.

In return for your cooperation a report of the results upon completion of the analysis of data will be sent to you and your team if you indicate that you would like to receive this information. Unfortunately, not all the schools that want to participate will have the opportunity to do so, only six schools that reply by the return date will be chosen for this investigation through a blind drawing.

Please, mark the appropriate response.

☐ "Yes, my team would like to participate."

☐ "No thank you, my team would not like to participate."

Please return this letter by March 5, 1993 in the self-addressed stamped envelope provided. Thank you very much for your time.

Sincerely,

Scott D. Buss
Graduate student / SJSU

Appendix B

Dear Coach,

Congratulations! Your team has been selected for the study you replied to last month. The investigator will be contacting you by phone within the next week to discuss the details of the study and to answer any questions you might have about the investigation. Also, the best date and time for your team to take the survey will be decided upon. The earlier in the season the survey can be given the better. Time is of the utmost importance for the study to be completed and an early date will also facilitate a speedy return of the results to you, if you desire to receive the information. If you have any questions before the investigator has contacted you, please call (408) 475-4302. Thank you for participating in the study, it is greatly appreciated.

Sincerely,

Scott D. Buss
Graduate Student
San Jose State University

Appendix C

Dear player,

I am a graduate student at San Jose State University, working on my master's thesis in the field of Human Performance. As part of my master's thesis, a survey and interview of 36 male and female Community College tennis players in Northern California will conducted.

Through a random selection process and after obtaining permission from your coach your team has been selected to participate in this study which will help determine the psychological effects a tennis player experiences prior to a collegiate match. If you decide to participate, you will be asked to respond to a short questionnaire prior to an intercollegiate match and then be given a short 20 to 30 minute interview approximately two to three days following the match.

Any information that is obtained in connection with this study will remain strictly confidential. Also, if you do decide to participate, you are free to withdraw your consent and to discontinue your participation at any time. Through previous phone contact and discussion with your coach a date for the survey to be given has been determined. The best possible date and time we were able to decide upon was _____. I look forward to meeting you and discussing any questions you might have at that time.

If you have any questions about the study please call, Scott Buss, (408) 475-4302, or Dr. David Furst, (408) 924-3039. We will be happy to answer all your questions.

Sincerely,

Scott D. Buss
Graduate Student
San Jose State University

Appendix D

Dear player,

You have been selected to participate in this study which will help to determine the psychological affects a tennis player experiences prior to a collegiate match. You will be asked to respond to a short questionnaire (see attached copy) approximately 20 to 30 minutes before your intercollegiate match and then be given a short interview on a returning date.

Any information that is obtained in connection with this study and that can be identified with you will remain strictly confidential. Your decision whether or not to participate will not prejudice your future with your college or San Jose State University. If you do decide to participate, you are free to withdraw your consent and to discontinue your participation at any time without prejudice.

The possibility that you will receive potential benefits from this study will not be determined until the analysis of the data has been completed. However, no risk or harm will come to you if you do decide to participate. Lastly, if you would like to have a copy of the results from the study you may call the number provided below.

If you have any further questions about the study please call me, Scott Buss, (408) 475-4302. If you have any questions or complaints about the research please contact my advisor Dr. David Furst, (408) 924-3039 or the Department Chair, Dr. James Bryant (408) 924-3013. Lastly, if you have any questions or complaints about research, subject's rights, or research related injury please call Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE HAVING READ THE INFORMATION PROVIDED ABOVE.

Date_____ Signature of Participant _____

Date_____ Signature of Investigator_____

Appendix E

Date_____ _____

Pre-Competition Questionnaire

DIRECTIONS: A number statements which athletes have used to describe their feelings before competition are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate *how you feel right now* - at this moment. There are no right or wrong answers. Do not spend to much time on any one statement, but choose the answer that describes your feelings *right now.*

		Moderately So	Very Much So	Somewhat	Not at All
1.	I am concerned about this competition	1	2	3	4
2.	I feel nervous	1	2	3	4
3.	I feel at ease	1	2	3	4
4.	I have self-doubts	1	2	3	4
5.	I feel jittery	1	2	3	4
6.	I feel comfortable	1	2	3	4
7.	I am concerned that I may not do as well in this competition as I could	1	2	3	4
8.	My body feels tense	1	2	3	4
9.	I feel self-confident	1	2	3	4
10.	I am concerned about losing	1	2	3	4
11.	I feel tense in my stomach	1	2	3	4
12.	I feel secure	1	2	3	4
13.	I am concerned about choking under pressure	1	2	3	4
14.	My body feels relaxed	1	2	3	4
15.	I'm confident I can meet the challenge	1	2	3	4
16.	I'm concerned about performing poorly	1	2	3	4
17.	My heart is racing	1	2	3	4
18.	I'm confident about performing well	1	2	3	4
19.	I'm worried about reaching my goal	1	2	3	4
20.	I feel my stomach is sinking	1	2	3	4
21.	I feel mentally relaxed	1	2	3	4
22.	I'm concerned that others will be disappointed with my performance	1	2	3	4
23.	My hands are clammy	1	2	3	4
24.	I'm confident because I mentally picture myself reaching my goal	1	2	3	4
25.	I'm concerned I won't be able to concentrate	1	2	3	4
26.	My body feels tight	1	2	3	4
27.	I'm confident of coming through under pressure	1	2	3	4

Appendix F

ID_____

Interview Schedule

Introductory statement: Hello, my name is Scott Buss. I am a graduate student at San Jose State and I am conducting this interview as part of my masters thesis. I am also the Community College tennis coach at Cabrillo College.

I am going to ask you a few questions about the match you had on the day you were given the questionnaire. The interview should not take more than 20 or 30 minutes. The data I collect from these interviews will be used to disclose some of the thoughts tennis players have prior to competing. Hopefully, the information gained will help develop coping strategies specifically for tennis players.

I would like to record the interview in order to be exact in my analysis of the data. However, you may be assured that all information recorded today will be held in strict confidentiality. Also, this interview is voluntary and you may stop at any time. Do you have any questions? If you will, please respond as completely and honestly as possible.

Demographic data:

First I would like to ask a few questions about yourself and your background with tennis.

Years Played_____ Years on Team_____

Ladder Position_____ Age_____ Sex M / F

Copy of Results_____

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	1. When did your thoughts or feelings about the match begin?
Did you have any thoughts or feelings about the match the night before? What was the most intense thought or feeling:	

Did this thought or feeling intensify as the start of the match drew closer? When was this thought or feeling most intense? Were these thoughts **positive** or **negative?**	
Can you elaborate on this: How did this make you feel, was it positive or negative. What was your biggest fear: Did you have any thoughts you might choke in the match? How well did you think you would play: How did you feel physically: Breathing shallow, feel cold, muscle tension, butterflies in stomach, shaky	**2. Describe your confidence level before the match started approximately one half hour before the match was to start:**

Rate how important tennis is to you on a scale of 1 to 10, 1 being lowest and 10 being highest. 10 would be defined as someone who makes tennis there livelihood, 6 hours a day practice, plays tournaments, teaches ? How serious were you about the match : Was this positive or negative for you Did you ever feel you might have an inadequate performance before your match started:	**3. How much of a role does tennis play in your life:**
Did they effect you positively or negatively. Were there any spectators at the match that effected you more than other spectators For example: coach, girlfriend, parents, unknown spectators	**4. Did you see any spectators at your match?**

Can you elaborate on this more for me: In what way does this spectator effect you. Why does this particular spectator effect you?	
	5. When do you like an audience to watch you play/When don't you like an audience to watch you play?
Which way did you feel the day of your match When you are playing this way how do you feel: Is this positive or negative for you Did you think what the spectators will think of your play before you started your match?	

	6. Did you perceive your match would be difficult?
What circumstances make tennis difficult: **Elaborate more for me please,** Describe these circumstances in more detail. Does an audience effect whether you feel these circumstances are difficult or not:	
	Are there any comments you would like to add: **Are there any situations or circumstances that we have not talked about that make you real nervous prior to a match**